

(PROPOSED AMENDMENT)

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CLAIMS:

1. A railway rail support assembly (3), for resiliently suspending a railway rail (1) above a track foundation (2) at discrete locations along the rail
5 (1), wherein the assembly (3) has rail supporting means (31, 32, 33, 34) through which a predetermined clamping load is exerted on the said rail (1) such that the assembly (3) has a desired resistance to longitudinal creep therethrough of the rail (1), and wherein the
10 rail supporting means (31, 32, 33, 34) do not include any fastening means passing through the web of the rail (1).
2. An assembly as claimed in claim 1, wherein the rail supporting means (31, 32, 33, 34) are attached,
15 when the assembly (3) is in use, to an approximately horizontal upper surface of the said track foundation (2).
3. An assembly as claimed in claim 1 or 2, comprising first and second brackets (31, 32) and first
20 and second elastic members (33, 34), each of the said first and second brackets (31, 32) having a bearing part (312, 322) and a base part (311, 321), the bearing part (312, 322) being located adjacent to either side of the rail (1) when the assembly (3) is in use and the
25 base part (311, 321) being located on an upper surface of the said track foundation (2), the first elastic member (33) being located between the first bracket (31) and the rail (1) and the second elastic member being located between the rail (1) and the second
30 bracket (32), when the assembly (3) is in use, and further comprising means (41, 51, 517; 53, 60; 701, 71, 72, 73; 701, 71, 72, 74; 41f, 52; 311j, 321j, 381j, 382j; 80 to 82; 90 to 94; 100 to 103;) for maintaining the said predetermined clamping load.
- 35 4. An assembly as claimed in claim 3, wherein the said first and second brackets (31, 32) are held in

321) of the brackets (31, 32).

5. An assembly as claimed in claim 3 or 4, wherein the said first and second brackets (31, 32) are supported on a base plate (38).

5 6. An assembly as claimed in claim 5, wherein the said base plate (311h) is integral with one of the said brackets (31h).

7. An assembly as claimed in claim 5, wherein the said base plate (38) is integral with both of the said
10 first and second brackets (31, 32).

8. An assembly as claimed in claim 5, wherein the base part (311, 321) of each of the said first and second brackets (31, 32) has an inclined lower surface (311j, 321j), and upper surfaces (381j, 382j) of the
15 said base plate (38) are correspondingly inclined.

9. An assembly as claimed in claim 6, wherein the base part (321h) of the other one of the said first and second brackets (31, 32) has an inclined lower surface, and the said base plate (38) has a corresponding
20 inclined upper surface.

10. An assembly as claimed in claim 4, wherein the track foundation (2) has an upstand (80; 90), the assembly (3) further comprising a wedge element (81; 91) shaped such that it fits between the upstand (80; 90) and the bearing part (312, 322) of an adjacent one
25 of the said brackets (31, 32) when the assembly (3) is in use so as to maintain a desired clamping load applied to said bracket (31, 32).

11. An assembly as claimed in claim 5, wherein
30 the base plate (38) has an upstand (80; 90), the assembly (3) further comprising a wedge element (81; 91) shaped such that it fits between the upstand (80; 90) and the bearing part (312, 322) of an adjacent one of the said brackets (31, 32) when the assembly (3) is
35 in use so as to maintain a desired clamping load applied to said bracket (31, 32).

12. An assembly as claimed in claim 10 or 11, wherein the base part (311, 321) of the said bracket (31, 32) is provided with a slot (314L) therethrough through which the said upstand (90) protrudes.

5 13. An assembly as claimed in claim 12, wherein the fit of the upstand (90) in the slot (314L) allows movement of the bracket (31, 32) relative to the upstand (90) such that insertion of the wedge element (91) between the upstand (90) and the bearing part
10 (312, 322) of the said bracket (31, 32) drives the bracket (31, 32) away from the said upstand (90) whereby the said desired clamping load is applied to the said bracket (31, 32).

14. An assembly as claimed in any one of claims
15 10 to 13, wherein the bearing part (312, 322) of the said bracket (31, 32) has a projection (315L) extending towards the said upstand (90) so as to define a space between opposing surfaces of said projection (315L) and upstand (90) for receiving said wedge element (91).

20 15. An assembly as claimed in any one of claims 10 to 14, arranged such that said wedge element (81) may be installed substantially vertically.

16. An assembly as claimed in any one of claims
25 10 to 14, arranged such that said wedge element (91) may be installed substantially horizontally.

17. An assembly as claimed in claim 4, wherein
part of the said fixing means (41, 51; 53, 60; 701; 63;
82; 90; 101) projects above the base part (311, 321) of
the bracket (31, 32) such that between such projecting
30 part and the said bracket (31, 32) there is defined an aperture for receiving cooperating first and second wedge elements (71, 72) shaped so as to maintain a desired clamping load applied to the said bracket (31, 32).

35 18. An assembly as claimed in claim 17, wherein each of the said first and second wedge elements (71,

72) has a serrated face (711, 712; 722), which serrated faces (711, 712; 722) interlock when the assembly (3) is in use.

19. An assembly as claimed in any one of claims 5 10 to 18, wherein, when the assembly (3) is in use, the wedge element (81; 91), or at least one of the wedge elements (71, 72), is secured by means of a fastening device (73; 82; 93), for example a bolt.

20. An assembly as claimed in any one of claims 3 10 to 19, wherein the said first and second brackets (31a, 32a) are of identical cross section, and the said first and second elastic members (33a, 34a) are of identical cross section, so that the supported rail (1) is held in a substantially upright condition.

15 21. An assembly as claimed in any one of claims 3 to 19, wherein the said first and second brackets (31c, 32c) have non-identical cross sections, and the said first and second elastic members (33c, 34c) have identical cross sections, thereby supporting the rail 20 (1) in an inclined condition with respect to the vertical axis.

22. An assembly as claimed in any one of claims 3 to 19, wherein the said first and second brackets (31d, 32d) have identical cross sections, and the said first 25 and second elastic members (33d, 34d) have non-identical cross sections, thereby supporting the rail (1) in an inclined condition with respect to the vertical axis.

23. An assembly as claimed in any one of claims 3 30 to 22, wherein each of the said first and second brackets (31e, 32e) and/or each of the said first and second elastic members (33e, 34e) is shaped such that the stiffness of the assembly (3) varies, in a direction parallel to the longitudinal axis of the rail 35 (1), such that it is greatest in the central region of the assembly (3).

direction parallel to the longitudinal axis of the rail (1), such that it is greatest in the central region of the assembly (3).

24. An assembly as claimed in any one of claims 3 to 23, wherein each of the said first and second brackets (31g, 32g) and/or each of the said first and second elastic members (33g, 34g) is shaped so as to augment the applied clamping load.

25. An assembly as claimed in any preceding claim, wherein the height of the rail (1) relative to the track foundation (2) is adjustable.

26. An assembly as claimed in any one of claims 3 to 25, wherein there is a support plate (96, 97) located between the said first and/or second bracket (31m, 32m) and the said elastic member (33m, 34m) associated with the or each bracket (31m, 32m).

27. An assembly as claimed in claim 26, wherein there is a rigid member (95) located between one of the said support plates (96, 97) and the bracket (31, 32) associated with that support plate (96, 97).

28. An assembly as claimed in any one of claims 3 to 27, wherein the said clamping load maintaining means comprise eccentric cam means (100 to 103).

29. An assembly as claimed in any preceding claim, wherein the said first and second brackets (31, 32) are hinged relative to the track foundation (2).

30. An assembly as claimed in any one of claims 4 to 28, wherein the said fixing means (41, 51; 53, 60; 701; 63; 82; 90; 101) comprise a shoulder (41; 41f) and securing clip (51; 52; 101').

31. An assembly as claimed in claim 30, wherein the said securing clip (51; 52; 101') is held in place in the said shoulder (41; 41f) by the resilience of that securing clip (51; 52; 101'), and wherein the said securing clip (51; 52; 101') is substantially rigid in a vertical direction when the assembly (3) is in use.

inserted into the said shoulder (41; 41f) when the assembly (3) is in use, and a rear part (512, 513) to which force is applied in order to insert the said front part (510, 511, 514, 515, 516) into the said
5 shoulder (41; 41f), the said front part (510, 511, 514, 515, 516) having means (514) for retaining the clip (51; 52; 101') in the shoulder (41; 41f) when the assembly (3) is in use.

33. An assembly as claimed in claim 32, wherein
10 the said front part (510, 511, 514, 515, 516) comprises a pair of substantially parallel elongate members (511, 514), and the said rear part (512, 513) comprises a curved member (512) joining the two elongate members (511, 514), one of the said elongate members (511, 514)
15 being shaped so as to provide the means for retaining the clip (51; 52; 101') in the shoulder (41; 41f).

34. An assembly as claimed in claim 33, wherein elastic material is located between the said pair of substantially parallel elongate members (511, 514).

20 35. An assembly as claimed in claim 32, wherein the clip (52) comprises a cylindrical bar of material which is substantially U-shaped in form.