CLAIMS

1. A seat leg assembly for a passenger seat, the assembly comprising:

a brace member configured to extend from a front end of a base frame of the passenger seat to a rear floor fitting;

a front leg configured to extend from a front floor fitting to the brace member and connected to the brace member with a slanted angle;

a rear leg portion extending from a rear end of the base frame to the brace member; and

a first joint structure connecting the rear leg portion to the brace member;

wherein the first joint structure comprises a first axle member for providing a first pivot point for the rear leg portion relative to the brace member and further comprises mating surfaces on the rear leg portion and the brace member respectively, to form a variable rotation resist joint when rotation motion between the rear leg and the brace member reaches a desired extent and to divert a tensile loading of the rear leg portion at the first pivot point through the brace member.

2. The assembly as claimed in claim 1, wherein the mating surfaces are substantially flat surfaces to achieve a desired load release, and to develop rotation resistance that is increasing during flexing between the rear leg portion and the brace member.

3. The assembly as claimed in any one of the preceding claims, wherein the mating surfaces extend on both sides of a projected location of the first axle member onto the brace member.

4. The assembly as claimed in claim 1, wherein the first joint structure further comprises a pair of side blocks mounted on the brace member for supporting the first axle member for the rear leg portion.

5. The assembly as claimed in any one of the preceding claims, wherein the front leg is connected to the brace member at a position between the front end of the base frame and the first joint structure.

6. The assembly as claimed in claim 5, wherein the front leg is connected to the brace member by a second joint structure.

7. The assembly as claimed in claim 6, wherein the second joint structure comprises a second axle member for providing a second pivot point for the front leg relative to the brace member.

8. The assembly as claimed in claims 5 or 6, wherein the front leg is configured for providing a counterforce to the brace member as a result of a downward force being applied to

the base frame, such that the counterforce facilitates flexing of the brace member in a region between the first and second joint structures.

9. The assembly as claimed in any one of the preceding claims, wherein the brace member comprises forward and backward curved portions extending from an intermediate portion to which the first joint structure is connected.

10. The assembly as claimed in claim 9, wherein the brace member is configured such that the forward curved portion is curved upward towards the front end of the base frame, and the backward curved portion is curved downward towards the back floor fitting.

11. The assembly as claimed in any one of the preceding claims, comprising respective pairs of the brace member, the front leg and the rear leg portion.

12. The assembly as claimed in claim 11, wherein the brace members, front legs and rear leg portions of the respective pairs are configured for connecting to the base frame at opposing sides thereof.

13. The assembly as claimed in any one of the preceding claims, further comprising one or more spreader elements configured to extend between, and to be connected to, respective bottom ends of the brace member and the front leg.

14. The assembly as claimed in claim 13, wherein each spreader element is configured to extend substantially parallel to a floor surface between the front and rear floor fittings.

15. The assembly as claimed in any one of the preceding claims, wherein the brace member is configured to be connected to a triple stud fitting as the rear floor fitting.

16. The assembly as claimed in any one of the preceding claims, wherein the front leg is configured to be connected to a seat track fitting as the front floor fitting.

17. The assembly as claimed in any one of the preceding claims, wherein the front leg is configured with a substantially vertical face for connection to the floor fitting, and a straight portion extending in a slanted manner between the vertical face and the brace member.

18. The assembly as claimed in claim 17, wherein the front leg is configured such that the straight portion extends in a backward slanting manner towards the brace member.

19. A frame for a passenger seat, the frame comprising a seat leg assembly as claimed in any one of claims 1-18.

20. A passenger seat comprising a seat leg assembly as claimed in any one of claims 1-19.