Claims

1. A linear bearing comprising:

a collar arranged to receive a shaft therethrough and defined around a main axis; and

first and second sets of cantilever springs that interleave each other, comprise fixed and free end portions, and are mounted within said collar so as to contact said shaft at first and second positions when said shaft is mounted inside said collar, wherein said first and second positions are longitudinally spaced from each other, and wherein said first and second sets of cantilever springs are arranged so as to permit displacement of said collar, relative to said shaft, in a direction substantially perpendicular to the main axis of said collar.

2. The linear bearing as claimed in claim 1, wherein:

said collar is longitudinally extended in a direction parallel to said main axis of said collar.

3. The linear bearing as claimed in claim 1, wherein:

said collar has a cross-sectional shape which is substantially circular.

4. The linear bearing as claimed in claim 1, wherein:

said free end of each one of said first and second sets of cantilever springs comprises a protrusion arranged to contact said shaft.

5. The linear bearing as claimed in claim 1, wherein:

each one of said first and second sets of cantilever springs comprises a first portion proximate to said fixed end of said cantilever spring having a first cross-sectional area, and a second portion proximate to said free end of said cantilever spring having a second cross-sectional area, wherein said first cross-sectional area is greater than said second cross-sectional area.

6. The linear bearing as claimed in claim 1, wherein:

each one of said first and second sets of cantilever springs comprises a first portion proximate to said fixed end of said cantilever spring which contacts an inner surface portion of said collar and a second portion proximate to said free end of said cantilever spring which is spaced from said inner surface portion of said collar.

7. The linear bearing as claimed in claim 1, wherein:

said collar and said first and second sets of cantilever springs comprise discrete parts.

8. The linear bearing as claimed in claim 1, wherein said collar is rigid.

9. The linear bearing as claimed in claim 1, wherein:
said collar comprises a mounting bracket.

10. The linear bearing as claimed in claim 1, wherein:
said first and second sets of cantilever springs comprise a low friction plastic.

11. The linear bearing as claimed in claim 1, wherein:
said collar and said first and second sets of cantilever springs comprise complementary features arranged to retain said first and second sets of cantilever springs within said collar during normal use.

12. The linear bearing as claimed in claim 1, further comprising:
one or more circlips arranged to retain said first and second sets of cantilever springs within said collar during normal use.

13. A deployable structure comprising:
at least one linear bearing; and
a shaft;
wherein said at least one linear bearing is mounted on said shaft, wherein said at least one linear bearing comprises a collar, having a main axis, that receives the shaft therethrough, and first and second sets of cantilever springs that interleave each other and are mounted within said collar so as to contact the shaft at a first and second positions inside the collar, wherein said first and second positions are longitudinally spaced from each other, and wherein said first and second sets of cantilever springs are arranged so as to permit displacement of said collar, relative to said shaft, in a direction substantially perpendicular to said main axis of said collar.