

ABSTRACT

Support structure for the uniform distribution of loads on a straight segment (10) comprising a set of bars (1) arranged two-dimensionally and connected to each other by nodes (2), which form edges of recursively placed triangles according to a fractal structure. The set of bars (1) comprises N levels, where at each node (2) of the base of the triangle of level n the vertex of a lower level triangle is located and:

- 10 ○ the bars (1) of the bases of level $n + 1$ have half the length of the bars (1) of higher levels,
- the inclined bars (1) of the same level n have the same length and modulus J , ,
- the bars (1) of the bases at the same level n have the same length and modulus J , and
- 15 ○ the bars (1) of the bases at the different levels n have the module J :
 - $J_n^H = J_1^H \tan(\beta_1) \cotan(\beta_n) / 2^{n-1}$