

**ABSTRACT****Vehicle moving by reptation, propelled jointly by longitudinal and lateral undulations**

The disclosure concerns techniques pertaining to vehicles moving by reptation, constituted by series of mutually articulated elements on which lateral undulations are imposed. The propulsion of the disclosed vehicle is achieved by a conjunction of lateral undulations and longitudinal undulations.

- 5 The lateral undulations resemble the swimming motions of a fish: the lateral supporting features (the rough features of the terrain or the hydrodynamic force in a liquid medium) generate a propulsive force when the motions are coordinated in such a way that each element seeks to copy the orientation of the element preceding it (as in the motions of following a wake). The
- 10 longitudinal undulations consist of a sequence of motions that are propagated evenly on the ventral surface of the vehicle. The ventral surface may show directional adhesion (sliding adhesion in the direction of forward motion and clinging adhesion in the other direction) so as to further increase the propulsive force. The disclosure can be applied especially to the
- 15 conveyance of loads on all types of terrain (hard, soft, uneven etc) in a way that is visually and acoustically discreet.

Figure 2

