

Pitching mechanism for lightweight expedition tents

Reference No: B80031



CHALLENGE

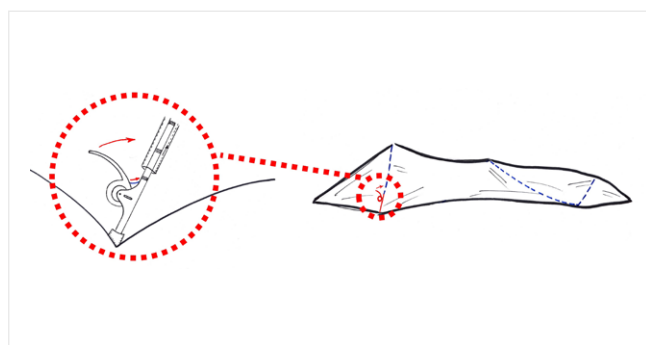
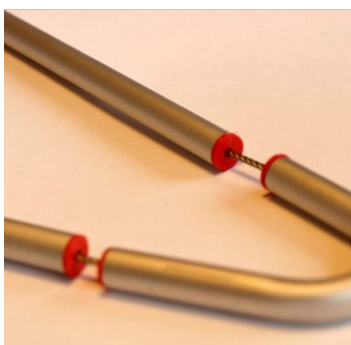
Setting up tents for expeditions requires knowledge and experience. Especially under harsh conditions a stable and safe pitching is time-consuming and requires a large number of steps. The integration of the poles into the tentfly requires precise actions. Clips need to be hooked in or poles have to be guided through the roof tarp. In cold weather gloves make the assembly process difficult and strong winds make it a challenge.

Simple systems, such as the well-known throw tents or inflatable solutions, provide neither satisfactory stability nor the necessary lightness to make them useful on hikes or expeditions.

INNOVATION

The poles including a tensioning mechanism, which was developed at the Technical University of Munich, sit fully integrated in the tent fly. The tent is erected by means of a cable pull system that is operated by a small ratchet mechanism. Its operation is intuitive and simple.

The high stability of the structure results from specially designed poles and connectors integrated into the tent cover. The design requires only two fixpoints (pegs), one on each front side. After releasing the cable, the tent can be packed and stowed within seconds.



COMMERCIAL OPPORTUNITIES

- solid structure for high quality lightweight tents
- setup in a few seconds
- Integrated tensioning system, few individual parts
- easy set up in harsh conditions (wind)

DEVELOPMENT STATUS

The functional prototype provides a good basis for rapid series development.