

Title (en)  
Telescopic vertical tube with dead stop

Title (de)  
Teleskopierbares Vertikalrohr mit Anschlag

Title (fr)  
Tube vertical télescopable doté d'une butée

Publication  
**EP 2378034 A3 20131225 (DE)**

Application  
**EP 11154458 A 20110215**

Priority  
DE 102010027873 A 20100416

Abstract (en)  
[origin: EP2378034A2] The tube (1) has an inner tube (3) movable in an outer tube (2), and front-sided head-and/or base plates (4) provided at one of lower ends (21) and an upper end. A stopper limits maximum insertion of the inner tube into the outer tube. A damper (7) e.g. hydraulic damper and pneumatic spring damper, is designed as the stopper or a lateral slotted sleeve and made of rubber. The base plates comprise an opening at an inner side of the outer tube, where diameter of the opening is less than inner diameter of the outer tube at the lower end and outer diameter of the damper.

IPC 8 full level  
**E04G 25/00** (2006.01); **E04G 25/06** (2006.01)

CPC (source: EP)  
**E04G 25/00** (2013.01); **E04G 25/06** (2013.01); **E04G 25/061** (2013.01); **E04G 25/065** (2013.01); **E04G 2025/006** (2013.01)

Citation (search report)

- [XA] US 5967702 A 19991019 - VOGELZANG HARMEN REINALDUS [ZA]
- [XAI] FR 1493415 A 19670901
- [X] CH 625588 A5 19810930 - SCHAFFNER ERNST [CH]
- [X] US 2003089050 A1 20030515 - TIPPING ELDON [US], et al
- [X] CH 470563 A 19690331 - RIEDTMANN HANS [CH]

Cited by  
EP4227478A1; CN105257017A; CN105257018A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
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