

Title (en)

Pump device for a container for liquid, paste or foamable skin cleaning and care preparations

Title (de)

Pumpeinrichtung für ein Behältnis für flüssige, pastöse oder aufschäumbare Hautreinigungs- und Pflegepräparate

Title (fr)

Dispositif de pompe pour un récipient pour préparations de nettoyage et de soin de la peau liquides, pâteuses ou mousseuses

Publication

EP 2499950 A3 20170628 (DE)

Application

EP 12001272 A 20120228

Priority

- DE 202011100895 U 20110519
- DE 202011105790 U 20110916
- DE 102011014169 A 20110316

Abstract (en)

[origin: EP2499950A2] The pump device (1) has a tapered bellows chamber (10) having multiple bellows elements (11) each provided with different diameters. A small bellows element is pushed into an adjacent larger bellows element, where the two bellows elements are locked with each other in the pushed state.

IPC 8 full level

A47K 5/12 (2006.01); **B05B 11/00** (2006.01)

CPC (source: EP US)

A47K 5/1208 (2013.01 - EP US); **B05B 11/1035** (2023.01 - EP US)

Citation (search report)

- [X] US 3973700 A 19760810 - SCHMIDT EDWARD C, et al
- [X] FR 2928357 A1 20090911 - AIRLESSYSTEMS SOC PAR ACTIONS [FR]
- [X] FR 2520702 A1 19830805 - GOURNELLE MAURICE [FR]
- [A] WO 2006031110 A1 20060323 - KELTUB B V [NL], et al

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)

DE 202011100895 U1 20110802; DE 102011014169 A1 20120920; DE 202011105790 U1 20111201; EP 2499950 A2 20120919; EP 2499950 A3 20170628; EP 2499950 B1 20181226; ES 2711258 T3 20190430; RU 2012109958 A 20130920; RU 2503395 C2 20140110; US 2012237377 A1 20120920

DOCDB simple family (application)

DE 202011100895 U 20110519; DE 102011014169 A 20110316; DE 202011105790 U 20110916; EP 12001272 A 20120228; ES 12001272 T 20120228; RU 2012109958 A 20120315; US 201213419756 A 20120314