

Title (en)
Spraying device comprising a sonotrode

Title (de)
Versprühvorrichtung, die eine Sonotrode umfasst

Title (fr)
Dispositif de pulvérisation comportant une sonotrode

Publication
EP 2090378 A3 20090930 (FR)

Application
EP 09152090 A 20090204

Priority
FR 0850927 A 20080213

Abstract (en)
[origin: EP2090378A2] The device (1) has aluminum sonotrode i.e. acoustic amplifier, with an end collar defining an ejection surface (4) that ejects particles of a cosmetic or dermatologic product e.g. face or body lotion. The collar is bent under the vibration effect of the sonotrode, where thickness of the collar is between 0.4 millimeter to 0.6 millimeter. The end collar has a circular contour, and a protective cover is articulated on a body of a case (2) between a lowered position and raised position. The sonotrode has a product supply channel with a narrow portion that is opened on the ejection surface.

IPC 8 full level
B05B 17/06 (2006.01); **A45D 34/00** (2006.01)

CPC (source: EP US)
B05B 7/0075 (2013.01 - EP US); **B05B 17/0607** (2013.01 - EP US); **B05B 17/0623** (2013.01 - EP US); **B05B 17/063** (2013.01 - EP US); **B05B 17/0669** (2013.01 - EP US); **A45D 2200/057** (2013.01 - EP US); **B05B 7/1673** (2013.01 - EP US); **B05B 15/55** (2018.01 - EP US)

Citation (search report)

- [XY] DE 2165609 A1 19730712 - SIEMENS AG
- [XY] DE 2165725 A1 19730705 - SIEMENS AG
- [XY] US 3904896 A 19750909 - GUNTERSDORFER MAX
- [XY] JP H034954 A 19910110 - TONEN CORP
- [Y] WO 2007104859 A1 20070920 - LVMH RECH [FR], et al

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2090378 A2 20090819; EP 2090378 A3 20090930; EP 2090378 B1 20121031; ES 2401005 T3 20130416; FR 2927238 A1 20090814; FR 2927238 B1 20120831; US 2009200395 A1 20090813; US 8556191 B2 20131015

DOCDB simple family (application)
EP 09152090 A 20090204; ES 09152090 T 20090204; FR 0850927 A 20080213; US 37013609 A 20090212