

Title (en)

SPRAY JET OUTLET DEVICE AND SPRAY EQUIPPED WITH SAME

Title (de)

BRAUSESTRAHLAUSTRITTSVORRICHTUNG UND DAMIT AUSGERÜSTETE BRAUSE

Title (fr)

DISPOSITIF DE SORTIE JETS DU POMMEAU DE DOUCHE ET POMMEAU DE DOUCHE CORRESPONDANT

Publication

EP 3338898 B1 20200701 (DE)

Application

EP 17206774 A 20171212

Priority

DE 102016225987 A 20161222

Abstract (en)

[origin: US2018178225A1] A shower jet outlet device and a shower head equipped therewith have a jet disk with at least one jet disk opening and a jet outlet element disposed in the jet disk opening. The jet outlet element is pot-shaped with an outlet-side bottom, a side wall and a hollow chamber delimited by the bottom and the side wall. The bottom faces in the jet outlet direction and includes fine jet openings. The bottom and the side wall are made of an elastic material and the jet outlet element is configured to deform by bulging of its bottom and/or its side wall, in response to fluid pressure in the hollow chamber when operating.

IPC 8 full level

B05B 1/18 (2006.01); **B05B 15/528** (2018.01)

CPC (source: CN EP RU US)

B05B 1/18 (2013.01 - CN RU); **B05B 1/185** (2013.01 - CN EP RU US); **B05B 1/3006** (2013.01 - US); **B05B 15/528** (2018.02 - EP RU US); **B05B 15/62** (2018.02 - RU); **E03C 1/0408** (2013.01 - US)

Citation (examination)

- US 5228625 A 19930720 - GRASSBERGER ROLAND [BE]
- WO 9600617 A1 19960111 - JOHS TANDRUP METALVAREFABRIK A [DK], et al
- CN 205518284 U 20160831 - FUJIAN XIHE SANITARY WARE TECH CO LTD

Citation (opposition)

Opponent : LI, Guiying

- WO 9522407 A1 19950824 - IDEAL STANDARD [DE], et al
- EP 0894536 A2 19990203 - GROHE KG HANS [DE]
- WO 2009126987 A1 20091022 - EXELL TECHNOLOGY PTY LTD [AU], et al
- US 5228625 A 19930720 - GRASSBERGER ROLAND [BE]
- WO 9600617 A1 19960111 - JOHS TANDRUP METALVAREFABRIK A [DK], et al
- CN 205518284 U 20160831 - FUJIAN XIHE SANITARY WARE TECH CO LTD
- US 2862766 A 19581202 - WARD IRVING A
- US 2004227019 A1 20041118 - OKUBO TAKAYASU [JP]
- DE 102006032017 B3 20080117 - GROHE AG [DE]
- US 5730361 A 19980324 - THOENNES THEO [DE]
- US 2017165688 A1 20170615 - UKIGAI KIYOTAKE [JP], et al
- US 5246301 A 19930921 - HIRASAWA NOBUO [JP]

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

DOCDB simple family (publication)

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DOCDB simple family (application)

EP 17206774 A 20171212; CA 2988877 A 20171214; CN 201711405728 A 20171222; DE 102016225987 A 20161222; HK 18114002 A 20181102; JP 2017243737 A 20171220; MX 2017016371 A 20171214; RU 2017143848 A 20171214; SA 117390170 A 20171213; SG 10201710568U A 20171219; TW 106144951 A 20171221; UA A201712670 A 20171220; US 201715846551 A 20171219