



(51) International Patent Classification:
B65D 47/28 (2006.01)

(21) International Application Number:
PCT/EP2014/078045

(22) International Filing Date:
16 December 2014 (16.12.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
14/108570 17 December 2013 (17.12.2013) US

(71) Applicant: **APTAR RADOLFZELL GMBH** [DE/DE];
Öschlestraße 54-56, 78315 Radolfzell (DE).

(72) Inventors: **SHANKAR, Sai**; 2404 Spectrum, Irvine, California CA 92618 (US). **MALLARE, Antonio O.**; 15611 South Wilton Place, Gardena, California CA 90249 (US). **KRAMPEIN, Gerald**; Herzenstrasse 1, 78315 Radolfzell (DE). **HERZ, Andi**; Alemannenstraße 31, 78253 Ei-

geltingen-Reute (DE). **GREINER-PERTH, Jürgen**; Im Täschen 13, 78244 Gottmadingen (DE).

(74) Agent: **PATENTANWÄLTE RUFF, WILHELM, BEIER, DAUSTER & PARTNER**; Kronenstraße 30, 70174 Stuttgart (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,

[Continued on next page]

(54) Title: PROTECTIVE CAP FOR A DISPENSER, AND DISCHARGE DEVICE FOR DISCHARGING PHARMACEUTICAL AND/OR COSMETICAL LIQUIDS

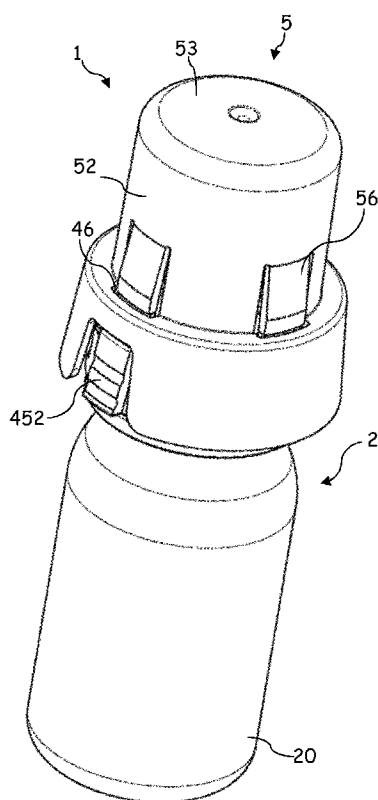


Fig. 6

(57) Abstract: The invention relates to a protective cap (3) for a dispenser (2) and to a discharge device (1) comprising a dispenser (2) for discharging pharmaceutical and/or cosmetic liquids, wherein the dispenser (2) comprises a liquid reservoir (21) and an outlet opening (24) through which the liquid (100) can be discharged into a surrounding atmosphere, wherein the protective cap (3) has an inner cap (4) and an outer cap (5), the inner cap (4) has at least one ventilation opening (40) for communication between an interior of the protective cap (3) and an external environment, wherein, before a use, the outer cap (5) is mounted on the inner cap (4) in a first position in which the inner cap (4) and the outer cap (5) are sealingly in contact with each other and the at least one ventilation opening (40) is separated in an airtight and germproof manner from the environment, and the outer cap (5) is movable relative to the inner cap (4) from the first position to at least a second position in which the inner cap (4) and the outer cap (5) are not sealingly in contact with each other and the at least one ventilation opening (40) communicates with the environment.



TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*