

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 October 2020 (22.10.2020)



(10) International Publication Number
WO 2020/212276 A1

(51) International Patent Classification:
B26B 19/38 (2006.01) *B26B 21/40* (2006.01)

(21) International Application Number:
PCT/EP2020/060302

(22) International Filing Date:
10 April 2020 (10.04.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
19170323.0 18 April 2019 (18.04.2019) EP

(71) Applicant: **KONINKLIJKE PHILIPS N.V.** [NL/NL];
High Tech Campus 52, 5656 AG Eindhoven (NL).

(72) Inventors: **EIJKELKAMP, Marcus Franciscus**; High Tech Campus 5, 5656 AE Eindhoven (NL). **SOLERIO, Daniele**; High Tech Campus 5, 5656 AE Eindhoven (NL). **NENGERMAN, Joost Willem Frederik**; High Tech Campus 5, 5656 AE Eindhoven (NL). **VAN ZUTPHEN, Martijn**; High Tech Campus 5, 5656 AE Eindhoven (NL). **HENDRIKS, Joop**; High Tech Campus 5, 5656 AE Eindhoven (NL).

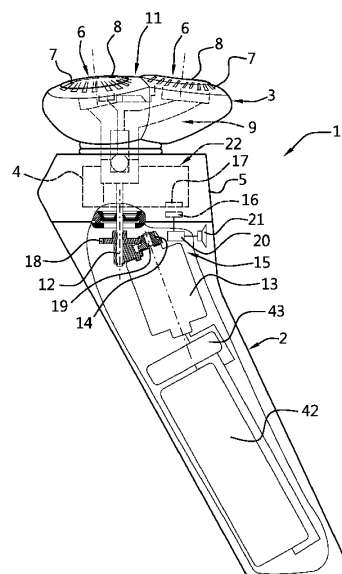
(74) Agent: **PHILIPS INTELLECTUAL PROPERTY & STANDARDS**; High Tech Campus 5, 5656 AE Eindhoven (NL).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, 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).

(54) Title: PRESSURE SENSING ELECTRIC SHAVER

Fig. 1



(57) Abstract: An electric shaver having a shaving unit (3) and a sensor (15) with a first sensor unit (16) fixed to a main body (2; 202; 302) and a second sensor unit (17) fixed to a sensor unit carrier (22; 222; 322), for indicating a distance between the sensor units (16, 17). The shaving unit (3) and the sensor unit carrier (22; 222; 322) are suspended to the main body (2; 202; 302) for displacement along a z-axis between a rest position (22) and a pushed-in position (22') in response to a pushing force exerted onto a shaving face (11) of the shaver (1). The first and second sensor units (16, 17) are located in positions offset from the z-axis over a distance (d) in an x-direction. An anti-tilting guide (24-27; 124; 224, 226; 326, 328) is provided for guiding the sensor unit carrier (22; 222; 322) against tilting about a y-axis.

WO 2020/212276 A1

[Continued on next page]

Published:

— *with international search report (Art. 21(3))*