

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 February 2019 (07.02.2019)



(10) International Publication Number
WO 2019/026066 A1

(51) International Patent Classification:
B64D 15/20 (2006.01)

(21) International Application Number:
PCT/IL2018/050837

(22) International Filing Date:
26 July 2018 (26.07.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
253739 31 July 2017 (31.07.2017) IL

(71) Applicant: ISRAEL AEROSPACE INDUSTRIES LTD.
[IL/IL]; Ben Gurion International Airport, 701000 Lod (IL).

(72) Inventor: MAROM, Daniel; 86 Ahad Haam Street,
4950772 Petah Tikva (IL).

(74) Agent: SERUYA, Yehuda; Reinhold Cohn & Partners,
P.O.B. 13239, 6113102 Tel-Aviv (IL).

(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, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(54) Title: ICING DETECTOR

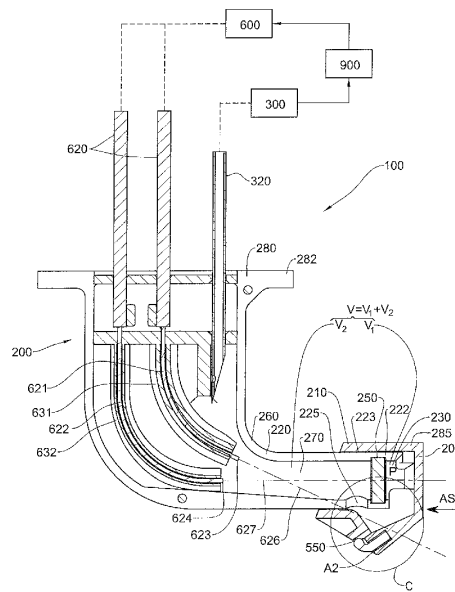


FIG. 3

(57) Abstract: A number of devices are provided for detecting presence of ice in an airstream. In some examples such device includes a housing defining a first chamber and a second chamber, and a partition wall separating the first chamber and the second chamber. The first chamber has at least one inlet opening on a front housing wall facing the airstream, and at least one outlet opening, smaller than the at least one inlet opening. The second chamber is configured for being operatively coupled to at least one electromagnetic (EM) system that is configured for transmitting EM energy to the first chamber at least via the partition wall, which is transparent and/or translucent with respect to the EM energy, the EM energy being configured for melting ice that can accrete with respect to the inlet opening. The device is configured for being operatively coupled to at least one air pressure sensor in fluid communication with the first chamber for detecting at least pressure changes in the first chamber responsive to ice accretion on the inlet opening.

[Continued on next page]



WO 2019/026066 A1

(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).

Published:

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