



(51) International Patent Classification:

F28F 19/06 (2006.01) *F28F 1/30* (2006.01)
F28F 21/08 (2006.01) *F28F 1/32* (2006.01)

(21) International Application Number:

PCT/US2013/036254

(22) International Filing Date:

11 April 2013 (11.04.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/623,375 12 April 2012 (12.04.2012) US

(71) Applicant: **CARRIER CORPORATION** [US/US]; One Carrier Place, Farmington, CT 06034 (US).

(72) Inventor: **GAROSSHEN, Thomas, J.**; 411 Silver Lane, East Hartford, CT 06118 (US).

(74) Agent: **MARSHALL, Paul, L.**; Cantor Colburn LLP, 20 Church Street, 22nd Floor, Hartford, CT 06103 (US).

(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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, 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, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: SACRIFICIAL ALUMINUM FINS FOR FAILURE MODE PROTECTION OF AN ALUMINUM HEAT EXCHANGER

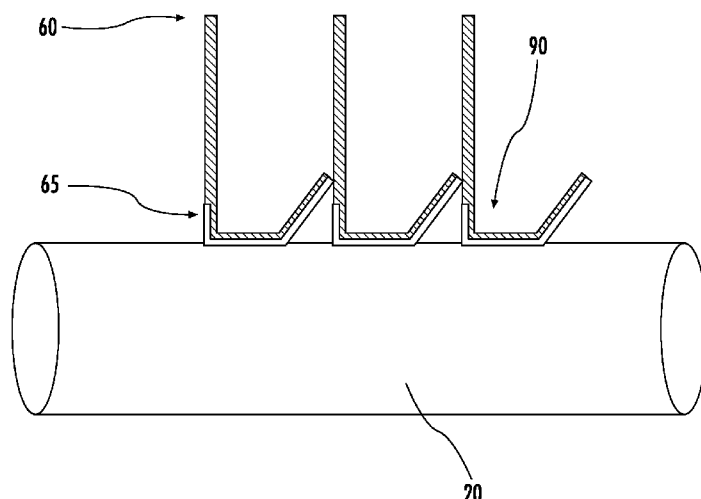


FIG. 3

(57) Abstract: A method of localized cathodic protection of a heat exchanger, includes providing at least one fin formed from a first metal alloy; applying a sacrificial layer of a second metal to at least one region in the at least one fin; and connecting a refrigerant tube to the at least one fin; wherein the sacrificial layer of the second metal includes a metal from one of a zinc alloy or a magnesium alloy.





Published:

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

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))