

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 May 2020 (14.05.2020)



(10) International Publication Number
WO 2020/096956 A1

(51) International Patent Classification:

F25B 21/02 (2006.01) *A47B 31/02* (2006.01)
F25D 11/00 (2006.01) *B62B 3/00* (2006.01)

(21) International Application Number:

PCT/US2019/059649

(22) International Filing Date:

04 November 2019 (04.11.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/756,985 07 November 2018 (07.11.2018) US
16/253,094 21 January 2019 (21.01.2019) US

(71) Applicant: **UNIVERSAL CITY STUDIOS LLC**
[US/US]; 100 Universal City Plaza, Universal City, California 91608 (US).

(72) Inventors: **DROBNIS, Nick**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US). **GIBSON, Darryl**; 1000 Universal Studios Plaza, Orlando, Florida 32819 (US).

(74) Agent: **POWELL, W. Allen** et al.; P.O. Box 692289, Houston, Texas 77269 (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, 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.

(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: MOBILE REFRESHMENT CART WITH THERMOELECTRIC COOLING

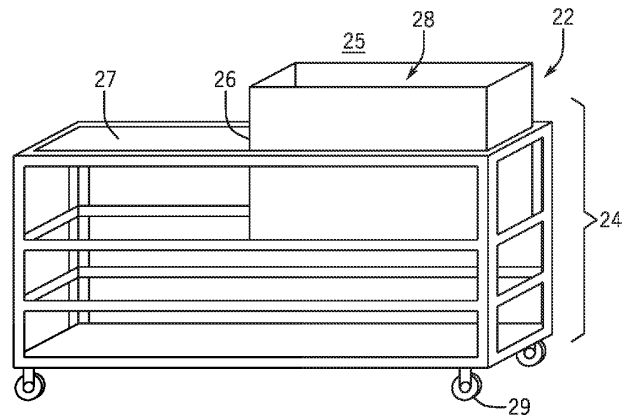


FIG. 3

(57) Abstract: A mobile refreshment cart (22) includes an open refreshment chamber (78) exposed to an environment (25) surrounding the refreshment cart and configured to receive refreshment containers therein. The mobile refreshment cart also includes a thermally conductive plate (34) having a first surface facing the open refreshment chamber, and having a second surface opposite to the first surface. The mobile refreshment cart also includes a thermoelectric cooler (70) coupled to, and directly contacting, the second surface of the thermally conductive plate. The thermoelectric cooler is configured to extract heat from the thermally conductive plate through the second surface of the thermally conductive plate. The refreshment cart also includes a fan (84) configured to urge an air flow over a portion of the thermoelectric cooler and to the environment, such that the air flow extracts the heat from the thermoelectric cooler and expels the heat to the environment.

[Continued on next page]

WO 2020/096956 A1

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))*

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))*