

(51) International Patent Classification:
A61F 7/10 (2006.01)(21) International Application Number:
PCT/US2011/046612(22) International Filing Date:
4 August 2011 (04.08.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/371,145 5 August 2010 (05.08.2010) US
61/416,278 22 November 2010 (22.11.2010) US
61/424,044 16 December 2010 (16.12.2010) US
12/987,989 10 January 2011 (10.01.2011) US(71) Applicant (for all designated States except US): **HYPER ICE, INC.** [US/US]; P.O. Box W, Torrance, CA 90508-0329 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MARTON, Robert** [US/US]; 4607 Via Del Prado, Yorba Linda, CA 92886 (US). **KATZ, Anthony** [US/US]; 28402 Sheridan Drive, Laguna Niguel, CA 92677 (US).(74) Agent: **SEWELL, Jerry, Turner**; P.O. Box 10999, Newport Beach, CA 92658-5015 (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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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))

Published:

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

(54) Title: ICE BAG WITH AIR RELEASE VALVE FOR THERAPEUTIC TREATMENT

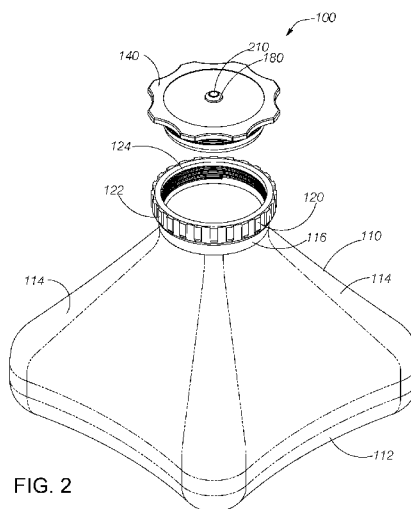


FIG. 2

(57) **Abstract:** A system (100; 300) simultaneously applies compression and cooling to a body part. An ice bag (100) has a removable cap (140) for inserting ice and removing water. An air release valve (180) in the cap (140) allows release of air from the ice bag (100) without removing or loosening the cap. A compression wrap (300) is a unitary sheet (350) of elastic material having a central body (352) with straps (360, 362, 370, 372) extending therefrom. A hole (354) in the central body (352) receives the neck (116) of the ice bag (100), which is positioned over the body part. The unitary body (352) and straps (360, 362, 270, 372) of the sheet (350) apply pressure via the ice bag (100). Air released into the ice bag (100) from melting ice is removed via the air release valve (180) without disturbing the compression wrap (300) or the cap (140). The compression wrap (300) contracts to compensate for the volume of the released air, thus maintaining continuous pressure on and thermal contact with the body part.