

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
23 November 2006 (23.11.2006)

PCT

(10) International Publication Number  
**WO 2006/123931 A3**

(51) International Patent Classification:

F25D 3/08 (2006.01) F28D 20/02 (2006.01)  
F25D 31/00 (2006.01) F28F 13/00 (2006.01)

(21) International Application Number:

PCT/NL2006/050121

(22) International Filing Date: 19 May 2006 (19.05.2006)

(25) Filing Language: Dutch

(26) Publication Language: English

(30) Priority Data:  
1029083 20 May 2005 (20.05.2005) NL

(71) Applicant (for all designated States except US): **M. BREEDVELDT BEHEER B.V.** [NL/NL]; Oud Bussumerweg 45, NL-1272 PT Huizen (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BREEDVELDT BOER, Menno Raymond** [NL/NL]; Oud Bussumerweg 45, NL-1272 PT Huizen (NL).

(74) Agents: **VAN LOOIJENGOED, Ferry Antoin Theodorus** et al.; Overschiestraat 180, NL-1062 XK Amsterdam (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

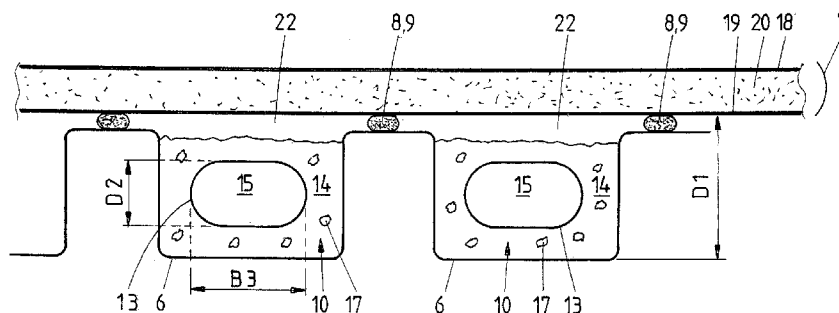
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
18 May 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR COOLING OBJECTS, IN PARTICULAR A COOLING MANTLE FOR BEVERAGE CONTAINERS



(57) Abstract: Cooling device for cooling objects, comprising an envelope containing a first and a second medium. The first medium (14) has a freezing device that is lower than the freezing point of the second medium (15), wherein at least the first medium is in a substantially liquid or, preferably, gel-like state at a temperature at which the second medium is frozen. This makes it possible to utilise the cooling capacity of the second medium, whilst the first medium will not harden due to freezing, as a result of which it will remain deformable, so that a very good adaptation of the shape of the envelope is obtained whilst a very good cooling capacity is nevertheless realised.



WO 2006/123931 A3

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/NL2006/050121

A. CLASSIFICATION OF SUBJECT MATTER INV. F25D3/08 F25D31/00 F28D20/02 F28F13/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) F25D F28D F28F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 411 313 A (THOMAS P. NOEL) 21 April 2004 (2004-04-21)	1-8,12, 22,23
Y	abstract; figures 1-4 paragraphs [0013], [0014], [0026] - [0037], [0042], [0043], [0045]	18,19
Y	US 5 086 629 A (DIBRELL ET AL) 11 February 1992 (1992-02-11) abstract; figure 10	18
Y	GB 1 185 811 A (ERIC RONALD PAXMAN) 25 March 1970 (1970-03-25)	19
A	abstract; figures 1-5 page 2, column 1, line 9 - line 14 page 2, column 1, line 42 - line 51 ----- -/--	1,16,18
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed		*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report	
9 February 2007	19/02/2007	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Yousufi, Stefanie	

## INTERNATIONAL SEARCH REPORT

International application No

PCT/NL2006/050121

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 595 328 A (BOWEN CLAUDE T) 6 May 1952 (1952-05-06)	1-4,6,7, 9,11,12, 14,23
Y	figures 1-3 column 4, line 19 - line 68 -----	10
Y	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) -& JP 2004 189999 A (OSAKA GAS CO LTD), 8 July 2004 (2004-07-08)	10
X	<a href="http://dossier1.ipdl.ncipi.go.jp/AIPN/aipn_call_trans1.ipdl?N0000=7413&amp;N0120=01&amp;N2001=2&amp;N3001=2004-189999">http://dossier1.ipdl.ncipi.go.jp/AIPN/aipn_call_trans1.ipdl?N0000=7413&amp;N0120=01&amp;N2001=2&amp;N3001=2004-189999</a> abstract; figures 1,2 paragraphs [0013], [0021], [0042] - [0048], [0053], [0054] -----	1,11,14
X	EP 1 293 738 A (SCHAEFER WERKE GMBH) 19 March 2003 (2003-03-19)  abstract; figures 1-9 paragraphs [0001] - [0005], [0008], [0013], [0014], [0016], [0020], [0021] -----	1-5,7, 12,13, 15-17, 20-23
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 18, 5 June 2001 (2001-06-05) & JP 01 067579 A (SAKURA SOGYO KK; KISAN KINZOKU KK), 14 March 1989 (1989-03-14) abstract; figures 1-3 -----	1,3,4,7, 8,12,22, 23

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/NL2006/050121
---

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
EP 1411313	A	21-04-2004	AU 2003255053 A1 BR 0304608 A MX PA03009397 A US 2004256087 A1	06-05-2004 01-03-2005 11-04-2005 23-12-2004
US 5086629	A	11-02-1992	NONE	
GB 1185811	A	25-03-1970	NONE	
US 2595328	A	06-05-1952	NONE	
JP 2004189999	A	08-07-2004	NONE	
EP 1293738	A	19-03-2003	AT 280370 T	15-11-2004
JP 01067579	A	14-03-1989	NONE	