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[Continued on next page]

(54) Title: APPARATUS FOR MAINTAINING THE TEMPERATURE OF A FLUID

(57) Abstract: An apparatus for maintaining the temperature of a fluid in a container includes a body having a cavity and a seal assembly adapted to engage and temporarily seal the container; a second fluid located and sealed in the cavity and having a freezing point below 0°C; and the body and the seal assembly have no apertures through which the fluid or the second fluid flows.

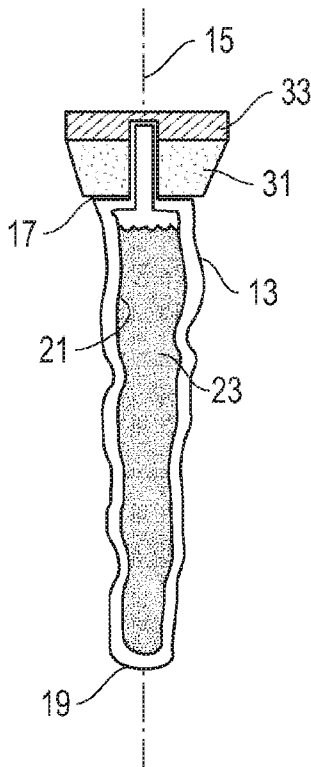


FIG. 2



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, 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.

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A. CLASSIFICATION OF SUBJECT MATTER***B65D 81/18(2006.01)i, B65D 51/28(2006.01)i, B65D 1/02(2006.01)i***

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)

B65D 81/18; A23L 3/36; B65D 51/28; B65D 1/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: maintain, temperature, seal, fluid

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 05129238A A (SCHWARTZ; JAMES A. et al.) 14 July 1992 See column 2 and figure 3.	1,2,4,8 9,10 3,5-7,11-20
Y	US 05502981A A (SULLIVAN; KIMBERLY M.) 02 April 1996 See figure 3.	9,10
A	JP 2001-048244 A (YOSHIMI TOKUICHI) 20 February 2001 See figure 1.	1-20
A	US 2006-0010903 A1 (MICHAEL PORTER) 19 January 2006 See figure 1.	1-20

 Further documents are listed in the continuation of Box C. 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

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"P" document published prior to the international filing date but later than the priority date claimed

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"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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 05129238A A	14.07.1992	US 05129238A A	14.07.1992
US 05502981A A	02.04.1996	None	
JP 2001-048244 A	20.02.2001	None	
US 2006-0010903 A1	19.01.2006	US 2004-0123620 A1 US 7069739 B2	01.07.2004 04.07.2006