



- (51) **International Patent Classification:**
A47K 3/02 (2006.01) A47K 3/00 (2006.01)
E04H 4/06 (2006.01)
- (21) **International Application Number:**
PCT/US2012/047068
- (22) **International Filing Date:**
17 July 2012 (17.07.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/510,957 22 July 2011 (22.07.2011) US
13/547,744 12 July 2012 (12.07.2012) US
- (71) **Applicant (for all designated States except US):**
WATKINS MANUFACTURING CORPORATION
[US/US]; 1280 Park Center Drive, Vista, California 92081 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** **LAMBERSON, Roger**
[US/US]; 4455 Rueda Drive, San Diego, California 92124 (US).
- (74) **Agent:** **UBELL, Franklin**; Greenberg Traurig, LLP, 77 West Wacker Drive, Suite 3100, Chicago, Illinois 60601 (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, 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).

- Published:**
— with international search report (Art. 21(3))
- (88) **Date of publication of the international search report:**
30 May 2013

(54) **Title:** PORTABLE SPA INSULATION METHOD AND APPARATUS

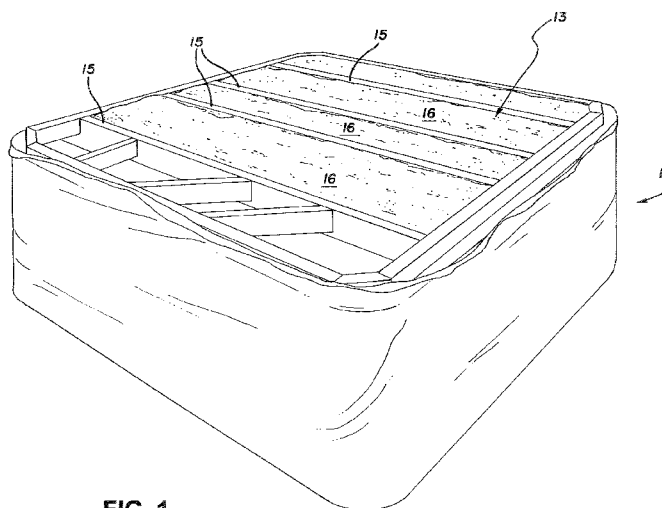


FIG. 1

(57) **Abstract:** An uninsulated portable spa unit is inverted, and a seal plate having a flat interior surface and a plurality of doors is lowered onto the bottom surface of the inverted spa. The doors are successively opened and glass wool installation apparatus is successively inserted through the door openings and operated to install glass wool insulation into the interior of the spa unit.



A. CLASSIFICATION OF SUBJECT MATTER*A47K 3/02(2006.01)i, E04H 4/06(2006.01)i, A47K 3/00(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)

A47K 3; E04B 1; B32B 19

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:glass wool, spa, insert, and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 2008-092965 A (YAMAHA LIVINGTEC. CORP.) 24 April 2008 See paragraphs 13-27, and figure 9.	8 1-7
A	JP 2000-355074 A (SHIMIZU TOSHIKAZU) 26 December 2000 See the whole document.	1-8
A	KR 10-2007-0005467 A (CHAE, HYOUNG GUN) 10 January 2007 See the whole document.	1-8
A	US 04829738A A (MOSS; ROBERT L.) 16 May 1989 See the whole document.	1-8

 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

"E" earlier application or patent 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 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

31 JANUARY 2013 (31.01.2013)

Date of mailing of the international search report

01 FEBRUARY 2013 (01.02.2013)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

LEE Byung Kyul

Telephone No. 82-42-481-8436



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/047068

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2008-092965 A	24.04.2008	None	
JP 2000-355074 A	26.12.2000	None	
KR 10-2007-0005467 A	10.01.2007	None	
US 04829738A A	16.05.1989	None	