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

(19) World Intellectual Property Organization

International Bureau



(10) International Publication Number WO 2010/077281 A1

(43) International Publication Date 8 July 2010 (08.07.2010)

- (51) International Patent Classification: A47K 10/34 (2006.01) B65H 16/02 (2006.01) A47K 10/22 (2006.01)
- (21) International Application Number:

PCT/US2009/006425

(22) International Filing Date:

8 December 2009 (08.12.2009)

(25) Filing Language:

English

(26) Publication Language:

English

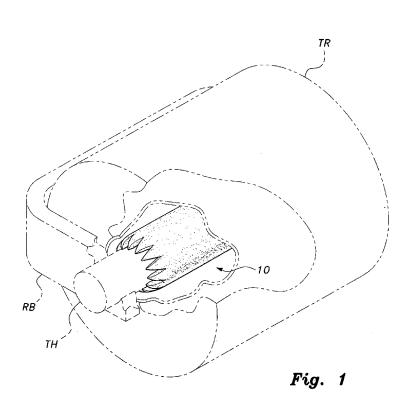
(30) Priority Data:

61/193,600 9 December 2008 (09.12.2008) US 12/591,942 4 December 2009 (04.12.2009) US

- (72) Inventor; and
- (71) Applicant: PATRICK, David, O. [US/US]; 287 Pleasant Lake Court, Jackson, Missouri 63755 (US).
- (74) Agents: FORDE, Remmon, R. et al.; Litman Law Offices, Ltd., P.O. Box 15035, Crystal City Station, Arlington, Virginia 22215 (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, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: TOILET PAPER ROLL SCENTED FOAM INSERT



(57) Abstract: The toilet paper roll scented foam insert (10) is a pliable, scent-impregnated foam sleeve that slips over the roller (TH) of a toilet paper dispenser (RB) and resiliently grips the roller. The insert is dimensioned and configured to slide through the hollow core of a roll of toilet paper.(TR) The sleeve has dentate ends that extend beyond the ends of the roll of toilet paper. (TR) When the roller (TH) is rotated to dispense paper, the passage of air through the dentate ends helps to dispense and distribute the scent through the air adjacent the toilet to overcome toilet odor.



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))

1

TOILET PAPER ROLL SCENTED FOAM INSERT TECHNICAL FIELD

The present invention relates generally to toilet paper dispensing accessories. More specifically, the invention relates to a toilet paper roll scented foam insert that provides a scent during rollout and use of the toilet paper.

5

10

15

20

25

BACKGROUND ART

Every modern bathroom is equipped with a toilet paper dispenser for dispensing disposable toilet tissue from a roll for hygienic purposes. Nevertheless, using the bathroom may still prove unpleasant because of the odors associated with the toilet. Many bathrooms are equipped with an exhaust fan to help alleviate this problem. However, such exhaust fans provide only a partial solution to the problem. Stand-alone air fresheners are of some help. But stand-alone air fresheners often go stale, aren't replaced regularly, lack sufficient strength for overcoming toilet odors, and are frequently knocked over, even if there's a place to put them in the bathroom. There is a need for a better solution to the problem of toilet odor in the bathroom.

Thus, a toilet paper roll scented foam insert solving the aforementioned problems is desired.

DISCLOSURE OF INVENTION

The toilet paper roll scented foam insert is a pliable, scent-impregnated foam sleeve that slips over the roller of a toilet paper dispenser and resiliently grips the roller. The insert is dimensioned and configured to slide through the hollow core of a roll of toilet paper. The sleeve has dentate ends that extend beyond the ends of the roll of toilet paper. When the roller is rotated to dispense paper, the passage of air through the dentate ends helps to dispense and distribute the scent through the air adjacent the toilet to overcome toilet odor.

These and other features of the present invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF DRAWINGS

5

10

15

20

25

30

Fig. 1 is an environmental, perspective view of a toilet paper roll scented foam insert according to the present invention.

- Fig. 2 is a perspective view of the scented foam insert according to the present invention.
- Fig. 3 is a front view of the scented foam insert according to the present invention.

Fig. 4 is a plan view of the scented foam insert, unrolled, according to the present invention.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

BEST MODES FOR CARRYING OUT THE INVENTION

As shown in Figs. 1-3, the toilet paper roll scented foam insert, designated generally as 10 in the drawings, is a pliable, scent-impregnated, hollow, foam, substantially cylindrical sleeve that can be placed on the roller TH of a toilet paper dispenser RB. The sleeve is preferably sufficiently resilient that it grips the roller. The roller TH can then be inserted through the hollow core of a roll TR of toilet paper and mounted on the dispenser RB. The cylindrical insert 10 has dentate ends that define teeth or vanes 15.

As most clearly shown in Figs 1 and 3, the dimensions of L1, L2, and D2 are formulated so that the vanes 15 extend beyond the ends of a toilet paper roll TR, preferably by about 3/8" on each side. During rollout of the paper, the rotating vanes 15 facilitate dispersal of the scent, the teeth or vanes 15 maximizing the surface area exposed to the air during rotation of the roller. The foam sleeve 10 emanates a pleasant fragrance during rollout and use of the paper in order to mask or neutralize toilet odors.

As shown in Fig. 4, the preformed shape 12 of insert 10 is substantially planar and rectangular having a total length L3 and a total width L2. Preferable total length L3 is approximately 8 inches. Preferable total width L2 is approximately 5.9062 inches. Preferable width L1 of portion IN is approximately 5.4063 inches. Portion IN preferably extends 3.5000 inches beyond dentate portion 15. During manufacturing, when the device 10 is formed into a roll, extended portion IN is tucked inside the roll and glued or otherwise fastened to remainder of inside roll portion to stably affix the roll into a cylindrical form.

The insert 10 may be made from any suitable foam material, such as foam rubber, polyurethane, polystyrene, or other resilient foam material. The scent may be any suitable fragrance, natural or synthetic.

WO 2010/077281 PCT/US2009/006425

3

It is to be understood that the present invention is not limited to the embodiment described above, but encompasses any and all embodiments within the scope of the following claims.

CLAIMS

I claim:

5

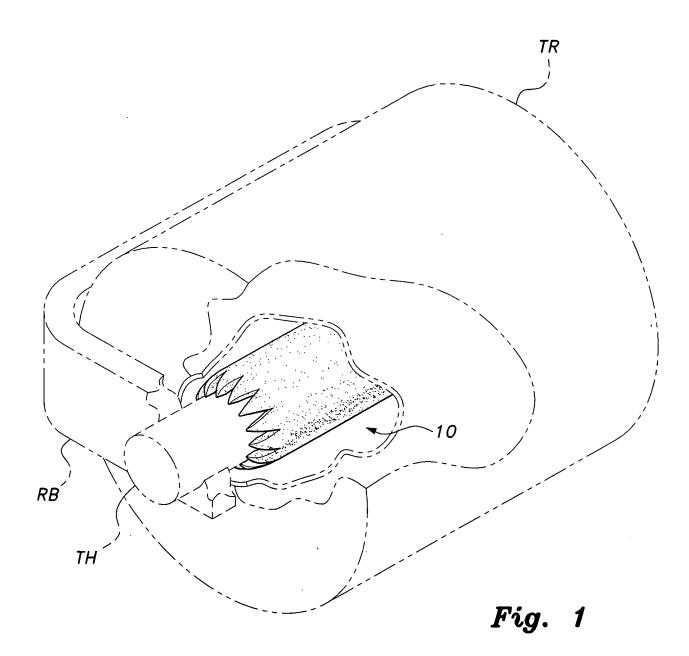
10

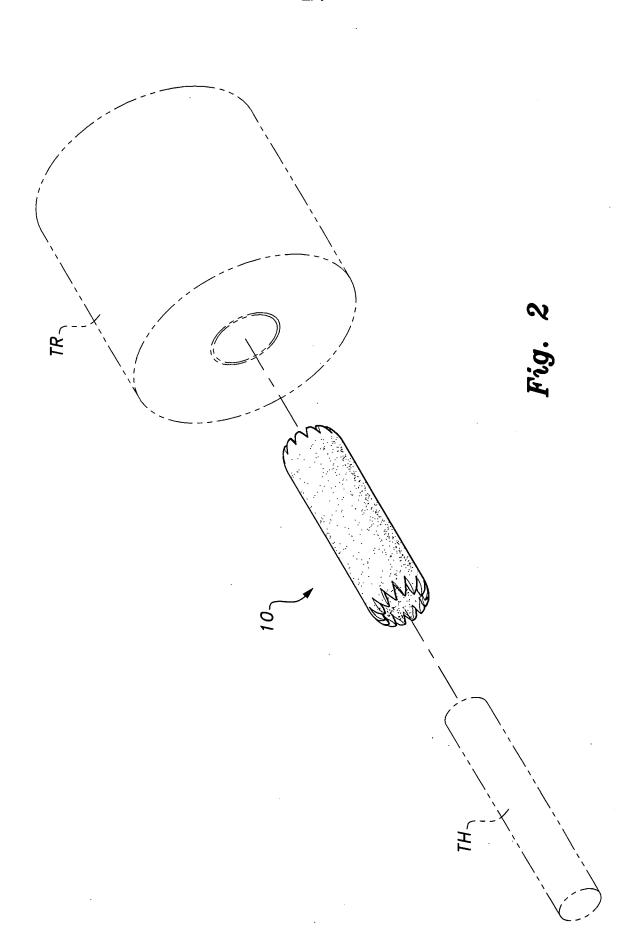
15

- 1. A toilet paper roll scented foam insert, comprising:
- a cylindrical, hollow sleeve made from a resilient foam material, the sleeve having opposing dentate ends defining vanes; and
 - a fragrance, the sleeve being impregnated with the fragrance;

wherein the sleeve is dimensioned and configured for being placed on a roller of a toilet paper dispenser, the vanes extending beyond opposite ends of a toilet paper roll mounted on the roller, whereby dispersal of the fragrance from the insert into ambient air is accelerated when the roller is rotated in order to mask toilet odors.

- 2. The toilet paper roll scented foam insert according to claim 1, wherein the foam insert is formed from a substantially planar and rectangular piece having a length extending into a tail portion, the tail portion being rolled and tucked inside the foam insert to stably affix the roll into a cylindrical form.
- 3. The toilet paper roll scented foam insert according to claim 2, wherein the total length of the planar rectangular piece is approximately eight inches.
 - 4. The toilet paper roll scented foam insert according to claim 2, wherein the total width of the planar rectangular piece is approximately 5.9062 inches.
- 5. The toilet paper roll scented foam insert according to claim 2, wherein the length of the tail portion is approximately 3.5000 inches.
 - 6. The toilet paper roll scented foam insert according to claim 2, wherein the tail portion has a width of approximately 5.4063 inches.





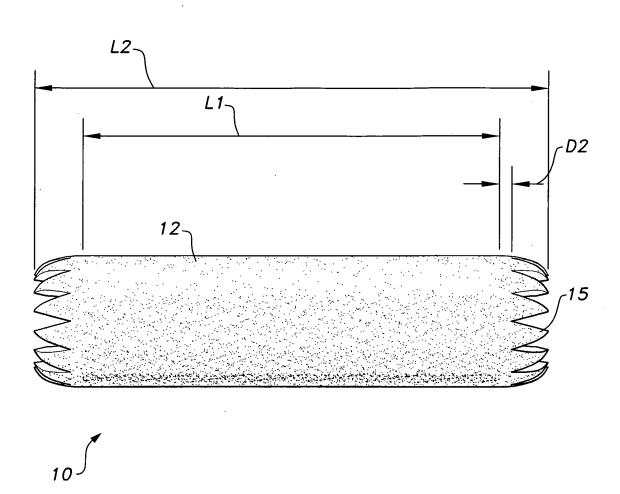
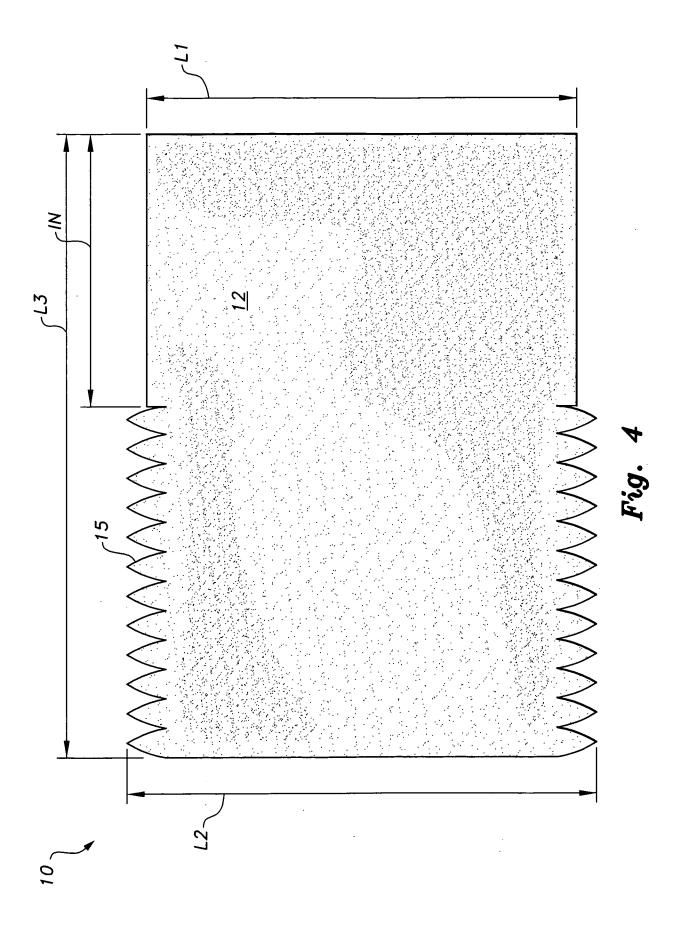


Fig. 3



International application No. **PCT/US2009/006425**

A. CLASSIFICATION OF SUBJECT MATTER

A47K 10/34(2006.01)i, A47K 10/22(2006.01)i, B65H 16/02(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)

A47K 10/34; A24F 15/00; A47K 10/16; A47K 10/38; A47K 13/14; A61L 9/00; A61L 9/12

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

(Chinese Patents and application for patent)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: core, (scent / fragrance / perfume / smell).

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5170938 A1 (RONALD DEWING) 15 December 1992 See abstract, and column 2, lines 22-48, and figures 1-4.	1-6
A	JP 2004-230077 A (KAO CORP.) 19 August 2004 See paragraphs [0007] - [0014], and figures 2-6.	1-6
A	US 5381984 A1 (KIM HINDSGUAL) 17 January 1995 See abstract, and column 4, line 44 - column 5, line 19, and figures 1-4.	1-6
A	GB 2367548 A (PAUL FINCH et al.) 10 April 2002 See abstract, and page 9, lines 8-15, and figures 5, 6.	1-6
A	JP 2002-238992 A (OKAMURA PRINTING INDUSTRIES CO., LTD.) 27 August 2002 See abstract, and paragraphs [0013] - [0016], and figures 1-4.	1-6

- 1		Further documents as	e listed	l 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
- "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

26 MAY 2010 (26.05.2010)

Date of mailing of the international search report

26 MAY 2010 (26.05.2010)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seogu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM, In Cheon

Telephone No. 82-42-481-8218



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/006425

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5170938 A1	15. 12. 1992	None	
JP 2004-230077 A	19.08.2004	JP 4234456 B2	04.03.2009
US 5381984 A1	17.01.1995	JP 05-344937 A WO 93-24043 A1	27. 12. 1993 09. 12. 1993
GB 2367548 A	10.04.2002	GB 0021048 D0 GB 2367548 B	11.10.2000 24.03.2004
JP 2002-238992 A	27.08.2002	None	