

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 March 2007 (15.03.2007)

PCT

(10) International Publication Number  
**WO 2007/029043 A1**

(51) International Patent Classification:  
**B65D 5/74** (2006.01) **B65D 25/42** (2006.01)

(21) International Application Number:  
PCT/GR2006/000044

(22) International Filing Date:  
6 September 2006 (06.09.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20050200109 7 September 2005 (07.09.2005) GR

(71) Applicant (for all designated States except US): **K. D. ADAM GRAPHIC ARTS SAIC** [GR/GR]; 275, Mesoghion Av., GR-15 231 Chalandri Attikis (GR).

(71) Applicant and

(72) Inventor: **ADAM, Konstantinos** [GR/GR]; 275, Mesoghion Av., GR-15 231 Chalandri Attikis (GR).

(74) Agent: **KOURI, G., Maria**; 50-52 Valtetsiou Str., GR-106 81 Athens (GR).

(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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

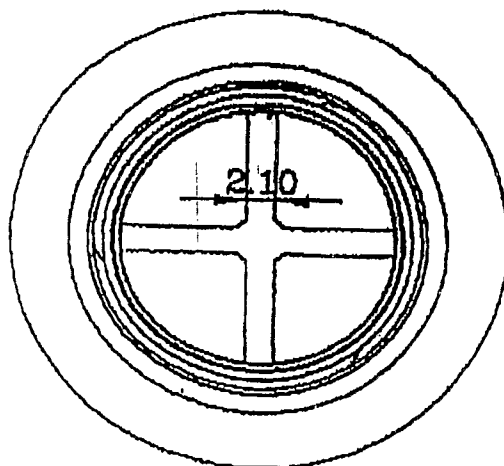
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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

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: PLASTIC SPOUT FOR LIQUID FOOD CARTON PACKAGES



Plan view

(57) Abstract: Plastic spout for liquid food carton packages which consists of an external spout (cap) and its sub-spout, on the orifice of which there is a cross-shaped structure.

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## PLASTIC SPOUT FOR LIQUID FOOD CARTON PACKAGES

The invention refers to a plastic spout with a sub-spout, which is used on  
5 liquid food carton packages for their opening and safe closing, for the protection of the product and its better flow.

Plastic spouts for liquid food carton boxes are well-known. However, their utility is exhausted in the opening, closing, protection and flow of the product.

They open and close the carton box and apart from the flow of the product,  
10 they do not offer any other convenience and capability to the consumer.

The advantage of this present invention is that the spout offers the potential for a better and more effective use of the product within the carton box while it is being consumed.

The plastic spout for the liquid food carton packages, according to this present  
15 invention, has the characteristic of the existence of a cross-shaped structure on the orifice of the sub-spout by which the flow of the product is controlled.

The consumer merely by opening the external spout, is able to transfer the liquid product wherever he wishes with regulated flow.

Figure No. 1 demonstrates the shape of the external spout and its internal  
20 section.

Figure No. 2 demonstrates the plan view of the spout.

Figure No. 3 demonstrates the profile and section of the sub-spout

Figure No. 4 demonstrates the plan view of the cross-shaped structure.

## CLAIMS

The plastic spout for liquid food carton packages consists of the external spout (cap) and the sub-spout and it is distinguished by a cross-shaped structure on the orifice of the sub-spout.

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Figure 1

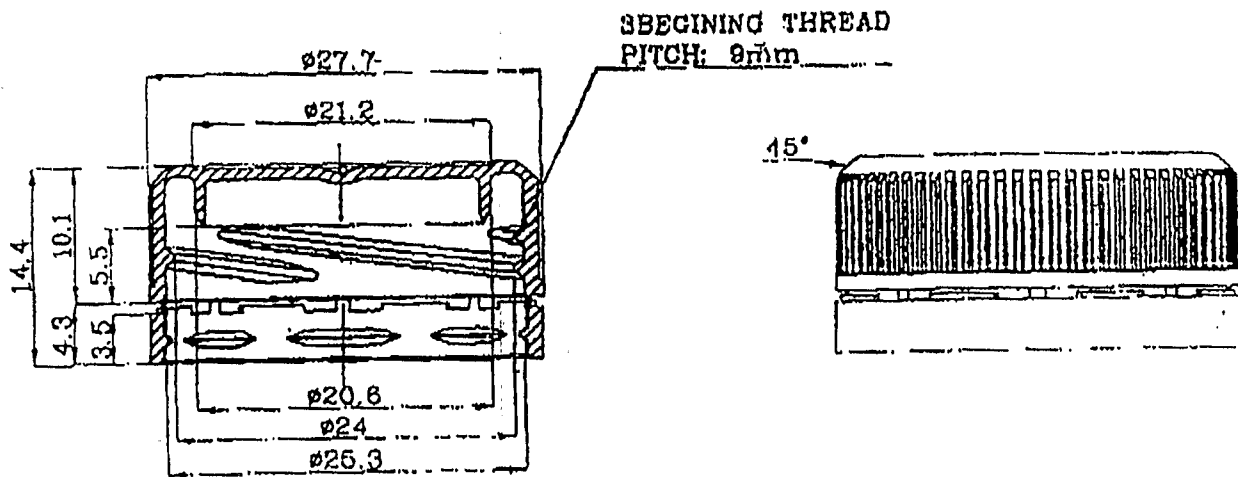
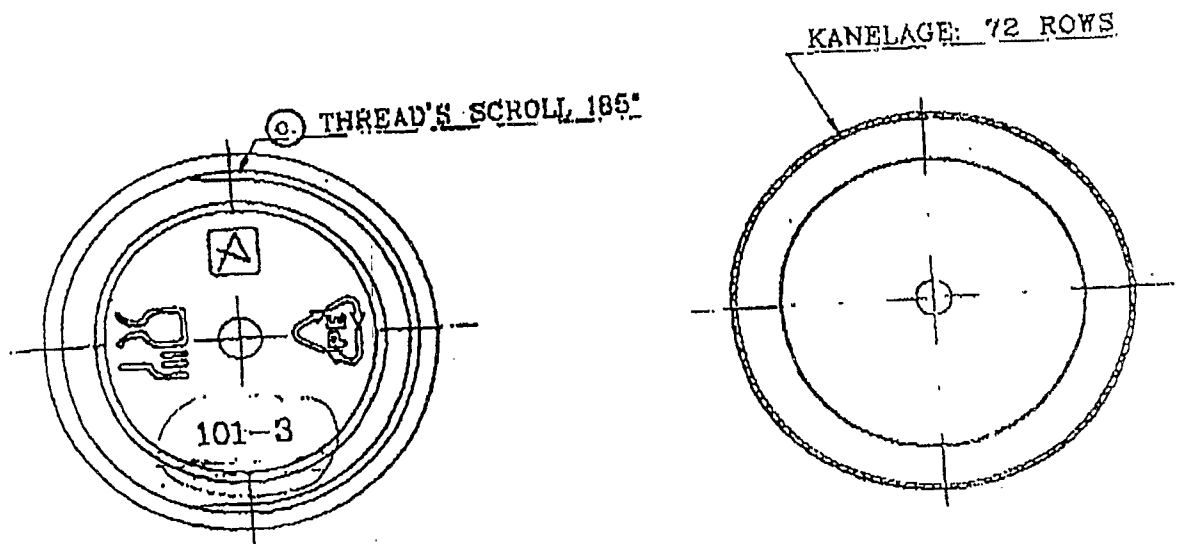


Figure 2



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Figure 3

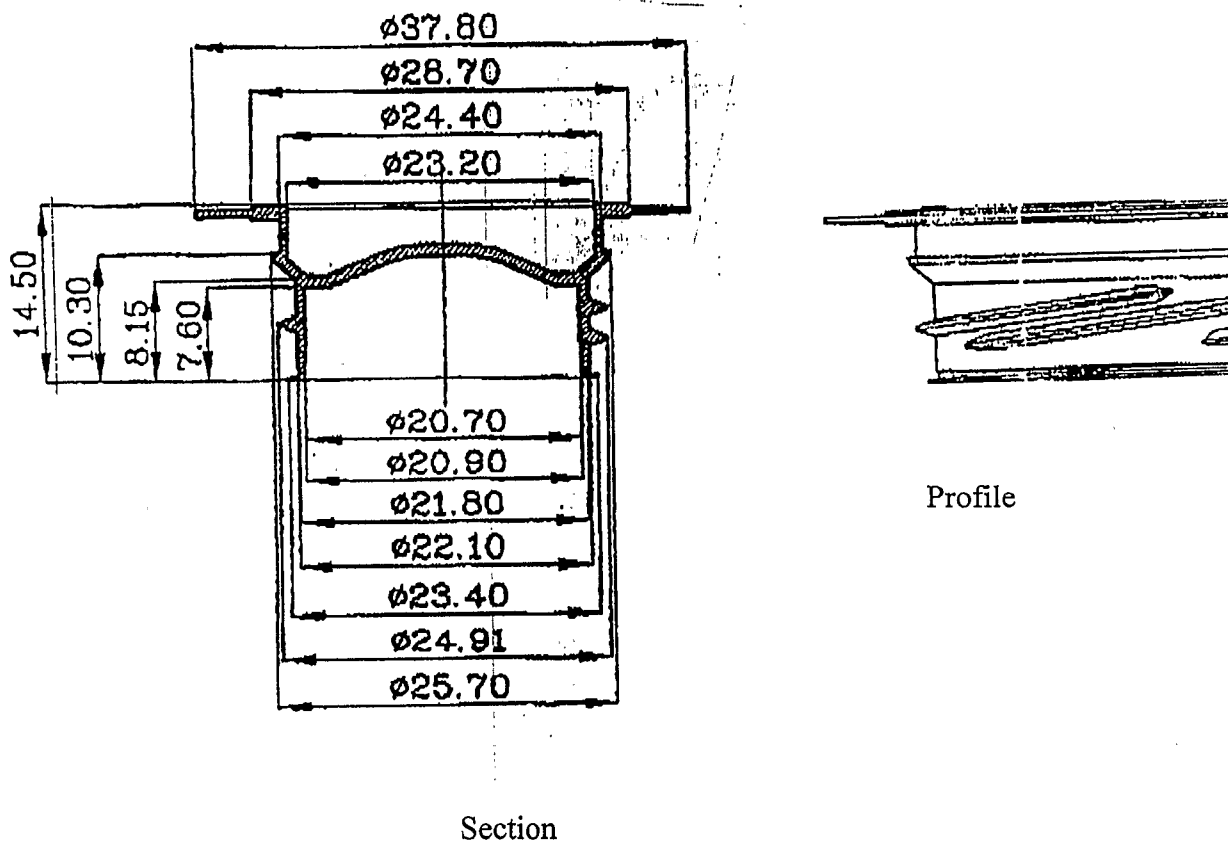
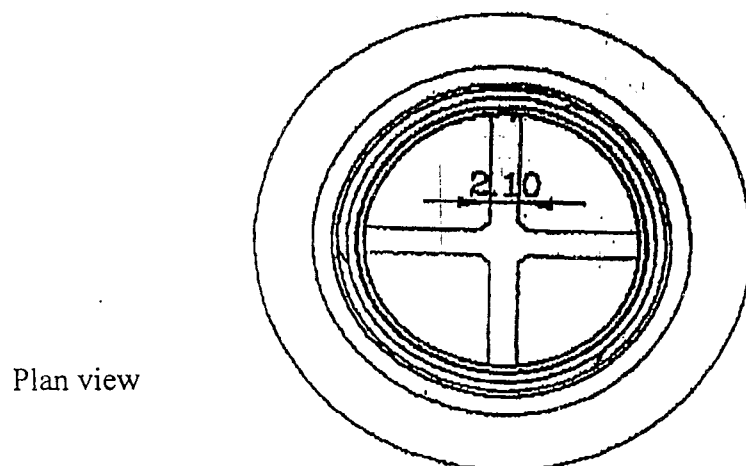


Figure 4



# INTERNATIONAL SEARCH REPORT

International application No

PCT/GR2006/000044

A. CLASSIFICATION OF SUBJECT MATTER  
INV. B65D5/74 B65D25/42

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

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         | JP 2005 041541 A (TOPPAN PRINTING CO LTD)<br>17 February 2005 (2005-02-17)<br>figures 1a,1b,3                                    | 1                     |
| A         | JP 11 105857 A (DAINIPPON PRINTING CO LTD)<br>20 April 1999 (1999-04-20)<br>figures 1a,1b,3a-3c                                  | 1                     |
| A         | WO 95/05996 A (INT PAPER CO [US])<br>2 March 1995 (1995-03-02)<br>abstract; figures 6-8<br>page 6, line 17 - page 7, paragraph 1 | 1                     |

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Date of the actual completion of the international search

21 November 2006

Date of mailing of the international search report

05/12/2006

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

Segeer, Heiko

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GR2006/000044

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s)                                                                                   | Publication<br>date                                                                            |
|-------------------------------------------|---|---------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| JP 2005041541                             | A | 17-02-2005          | NONE                                                                                                         |                                                                                                |
| JP 11105857                               | A | 20-04-1999          | NONE                                                                                                         |                                                                                                |
| WO 9505996                                | A | 02-03-1995          | AU 7519094 A<br>BR 9407361 A<br>CA 2170409 A1<br>EP 0714376 A1<br>FI 960893 A<br>JP 9501890 T<br>NO 960755 A | 21-03-1995<br>23-04-1996<br>02-03-1995<br>05-06-1996<br>26-04-1996<br>25-02-1997<br>23-04-1996 |