



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, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG,

Published:

— *with international search report (Art. 21(3))*

Smoking article container

Field of the invention

The present invention relates to smoking article containers.

5

Background

Amongst smoking article containers that are well known in the art are hinge lid containers wherein the lid is attached to the base portion of the container along the top of the rear panel of the container. It is well known in the art to provide a hinge lid container with bevelled or curved edges.

10

A commonly encountered problem with bevelled and curved edge hinge lid smoking article containers is that it has proved difficult to hold such containers shut thereby allowing contaminants such as dirt, moisture and the like to contaminate the contents of such containers.

15

Summary

The present invention in the embodiments described hereinafter provides a smoking article container comprising a lid and a base portion, wherein the base portion comprises a front panel, a rear panel, side panels extending between the front and rear panels, at least one bevelled panel or at least one curved edge abutting one of the side panels and the front panel and a tab extending outwardly from the bevelled panel or the curved edge where the bevelled panel or curved edge abuts the front panel and wherein the tab is configured to secure the lid when the container is closed.

20
25

Brief description of the drawings

In order that the invention may be more fully understood embodiments thereof will be described by way of illustrative example with reference to the accompanying drawings in which:

30

Figure 1 is a three dimensional view of a smoking article container according to one embodiment in an open state;

Figure 2 is a plan view of a blank for forming part of the container shown in Figure 1;

5 Figure 3 is a plan view of a blank for forming part of the container shown in Figure 1;

Figure 4 is a three dimensional view of the container shown in Figure 1 when closed;

10 Figure 5 is a frontal view of another container;

Figure 6 is a plan view of a blank for forming part of a container according to another embodiment;

15 Figure 7 is a plan view of a blank for forming part of a container according to another embodiment;

Figure 8 is a plan view of a blank for forming part of a container according to another embodiment;

20

Figure 9 is a frontal view of a closed pack according to another embodiment; and

Figure 10 is a three dimensional view of a container according to another embodiment.

25

Detailed description

Figure 1 is a perspective view of a pack 1 that comprises a base portion 5 and a lid
30 10. The base portion 5 comprises an outer frame 11 which may be formed from a blank 51 shown in Figure 2 and is made up of a front panel 15, a rear panel 20, side panels 25 and 30 and a base panel 26. The front panel 15, rear panel 20 and side panels 25 and 30 are connected to one another by intermediate bevelled edges 35A-

D that are configured to abut the front panel 15, rear panel 20 and side panels 25 and 30 at an oblique angle.

The base portion 5 also comprises an inner frame 40 inset relative to the outer
5 frame 11. The inner frame 40 comprises a front panel 15', side panels 25' and 30'. The front panel 15' and side panels 25' and 30' are connected to each other by intermediate bevelled edges 35A' and 35B' configured to abut the front panel 15' and side panels 25' and 30' at an oblique angle.

10 In order to help keep the pack 1 closed securely tabs 45A, B are situated on the bevelled edge 35A' in the inner frame 40 of the base portion 5. In the embodiment shown in Figure 1, the tabs 45A, B extend outwardly from and parallel to the bevelled edge 35A' where the bevelled edge 35A' meets the front panel 15' and where the bevelled edge 35A' meets the side panel 25', respectively. Corresponding
15 tabs 45 are also situated at the upper end of the bevelled edge 35B'.

The lid 10 shown in Figure 1 is connected to the base portion 5 by virtue of a hinge 12 extending along the top edge of the rear panel 20 of the outer frame 11. The lid 10 comprises front panel 35, rear panel 36 and side panels 37A, B which are
20 connected to each other by bevelled edges 38A-D. The lid 10 also comprises a top panel 39.

An advantage of the pack 1 shown in Figure 1 is that it may be manufactured easily and efficiently. Figure 2 shows a blank 51 suitable for forming the outer frame 11
25 of the pack 1.

Figure 3 shows a blank 53 suitable for forming the inner frame 40 of the pack 1 of Figure 1. The tabs 45 may be formed by cutting slits into the blank 53 to obtain the desired shape. The pack 1 may then be formed by adhering the inner frame 40 to
30 the outer frame 11.

The purpose of positioning the inner frame 40 inset relative to the outer frame 11 is to provide a flush interface between the base portion 5 and the lid 10 when the pack 1 is closed as can be seen in Figure 4. The inner frame 40 also provides support to

smoking articles that are kept in the pack 1. The flush interface between the base portion 5 and the lid 10 serves to keep the pack 1 substantially impervious to dirt, moisture and so forth when the pack 1 is closed, thus protecting the contents of the pack 1 from being contaminated. This is particularly important where the pack 1 is wrapped in a disposable wrapper made from cellophane or another suitable material well known in the art. Such a wrapper may be removed by a consumer after sale and before consumption and then discarded. The contents of the pack 1 may subsequently be vulnerable to contamination.

10 In another embodiment of the present invention, there may only be provided tabs 45A extending outwardly from the bevelled edges 35A' and 35B', and parallel thereto, where the bevelled edges 35A' and 35B' meet the front panel 15' of the inner frame 40. That is to say, the tabs 45B, shown in Figure 3, are not present.

15 As shown in Figure 1, flaps 50A-C are positioned within the interior of the lid 10. The flaps 50A-C may be folded into the front 35 and side 37A, B panels of the lid 10, respectively, and as such may be formed from the same blank as the rest of the lid 10 as shown in Figure 2. Alternatively, separate flaps 50A-C may be attached to the lid 10 using, for example, an adhesive. The flaps 50A-C are configured to engage with the tabs 45 when the pack 1 is closed. The flaps 50A-C may further reinforce the strength and resilience of the pack 1.

In the container shown in Figure 1 the tabs 45 and panels 50 are shaped so that the tabs 45 extend towards and abut the panels 50 when the pack 1 is closed which is shown in Figure 4. Such a configuration may also reduce any deformation of the lid 10 that can occur during normal use of the pack 1. It should be borne in mind that the inner frame 40 and the flaps 50 of the pack 1 would not be visible when the pack 1 is closed but are included in Figure 4 to aid the reader's understanding of their operation.

30

In alternative embodiments, the tabs 45 may be held in place behind the flaps 50A-C. In this embodiment, the tabs 45 may be configured to snap shut behind the flaps 50A-C when the pack 1 is closed thereby improving the efficacy of maintaining the

pack 1 in a closed position. This effect may be obtained by shaping the tabs 45 and flaps 50 accordingly. Figure 5 shows a frontal view of a closed pack 1 according to this embodiment where some the elements of the pack 1 that are not visible when the pack 1 is closed are shown.

5

Figure 6 shows an alternative blank 53 for forming the inner frame 40. Here, the tabs 45 extend from side panels 25' and 30' of the inner frame 40 and 'wrap around' the bevelled edges 35A' and 35B' and extend over the front panel 15' of the inner frame 40, when formed from the blank 53. When the pack 1 is closed the tabs 40
10 may be held in place by the flap 50 against the front panel 35 of the lid 10 shown in Figure 1. The tabs 45 may also be in frictional contact with the inside of the bevelled edges 38A and 38B of the lid 10.

Figure 7 shows an alternative blank 53 for forming the inner frame 40. Here, the
15 tabs 45A which extend over the front panel 15' of the inner frame 40 are lower than the tabs 45A which extend over the side panels 25' and 30' of the inner frame 40.

Figure 8 shows yet another alternative blank 53 for forming the inner frame 40. Here, the tabs 45A are jagged. Optionally, the sides of the flap 50 in the lid 10 may
20 also be jagged to enable improved frictional contact when the pack 1 is closed.

In an alternative embodiment, the edge of the flap 50A that abuts the side panel 37A of the lid 10 may contain recesses, as shown in Figure 9. In this embodiment the tab 45A may be shaped to interlock with the recess in the flap 50A. As the pack
25 1 is closed the tab 45A slides between the front panel 35 and the flap 50A located in the lid 10. When the pack 1 is fully closed the tab 45A interlocks with the flap 50A. In this closed state the tabs 45 and flap 50 sit substantially in the same plane and form a substantially tessellated surface.

30 It will be evident to a person skilled in the art that many variations may be made to the configuration of the tabs 45 and flaps 50 disposed in the lid 10. It is also possible to shape the tabs 45 that extend over the side panels 25' and 30' of the

inner frame 40 in a similar way to the various embodiments of tabs 45 extending over the front panel 15' of the inner frame 40.

In an alternative embodiment, no flap such as the flap 50 shown in Figure 1 is employed. In this embodiment, the pack 1 is prevented from becoming excessively deformed or otherwise deteriorated during use by virtue of the reinforcement provided by the tabs 45 being in frictional contact with the inside of the lid 10. The frictional engagement between the tabs 45 and the lid 10 also assists in securing the pack 1 closed. This is particularly useful with regard to smoking article containers where the contents may be consumed over an extended period of time and the pack 1 stored in locations such as a user's pocket where it may undergo considerable stress. This embodiment is compatible with any of the various shapes of tabs 45 hereinbefore described.

Figure 10 shows a curved edge pack 60. The pack 60 comprises a base portion 65 and a lid 70. The base portion 65 is made up of an outer frame 71 which comprises curved edges 75A-D between a front panel 80 and side panels 85, 90 and between the side panels 85, 90 and a rear panel 95. In the upper part of the base portion 65 there is an inner frame 100 which is inset relative to the outer frame 71. Located on a curved edge 75A' within the inner frame 100 are tabs 105A, B with corresponding tabs 105 located on the curved edge 75B'.

Located in the lid 70 are flaps 115A-C which operate in a manner substantially similar to the manner in which the flaps 50A-C operate in the embodiments described with reference to Figures 1-9. Alternatively, no flaps 115A-C may be employed as may be the case with the pack 1 as hereinbefore described.

As with the pack 1 shown in Figure 1, the pack 60 described with reference to Figure 10 may be formed from two blanks. One of the blanks may form the inner frame 100, when folded, and another blank may form the outer frame 71 of the pack 60 when folded. The pack 60 may then be formed by adhering the inner frame 100 to the outer frame 71 of the pack 60.

Additionally, it is intended that the various configurations of tabs 45 and flaps 50 employed with regard to the pack 1, hereinbefore described with reference to Figures 1-9, with appropriate modifications, may also be employed in the curved pack 60.

5

The embodiments hereinbefore described are intended merely as illustrative examples of the invention which is defined by the claims listed hereinafter. It will be readily apparent to the person skilled in the art that numerous alterations may be made without departing from the claimed scope of the invention.

Claims

1. A smoking article container comprising:
a lid; and
5 a base portion,
wherein the base portion comprises a front panel, a rear panel, side panels
extending between the front and rear panels, at least one bevelled panel or at least
one curved edge abutting one of the side panels and the front panel and a tab
extending outwardly from the bevelled panel or the curved edge where the bevelled
10 panel or curved edge abuts the front panel; and
wherein the tab is configured to secure the lid when the container is closed.
2. A smoking article container according to claim 1, further comprising a tab
extending outwardly from the bevelled edge or curved edge where the bevelled
15 panel or curved edge abuts one of the side panels.
3. A smoking article container according to either claim 1 or claim 2, wherein
the lid comprises a catch configured to engage with the tab or tabs.
- 20 4. A smoking article container according to claim 3, wherein the catch
comprises a panel extending substantially parallel to a front panel of the lid.
5. A smoking article container according to claim 4, wherein the catch further
comprises a panel extending substantially parallel to a side panel of the lid.
25
6. A smoking article container according to any preceding claim, wherein the
tab or tabs abuts or abut the catch when the container is closed.
7. A smoking article container according to claim 6, wherein the catch contains
30 a recess.
8. A smoking article container according to any of claims 1-5, wherein the tab
or tabs sit behind the catch when the container is closed.

9. A smoking article container according to claims 1-5, wherein the tab or tabs and/or the catch have a jagged edge.
- 5 10. A blank that, when folded, forms part of a smoking article container according to any of the preceding claims.
11. A smoking article container or blank for forming a smoking article container substantially as hereinbefore described with reference to the accompanying
10 drawings.

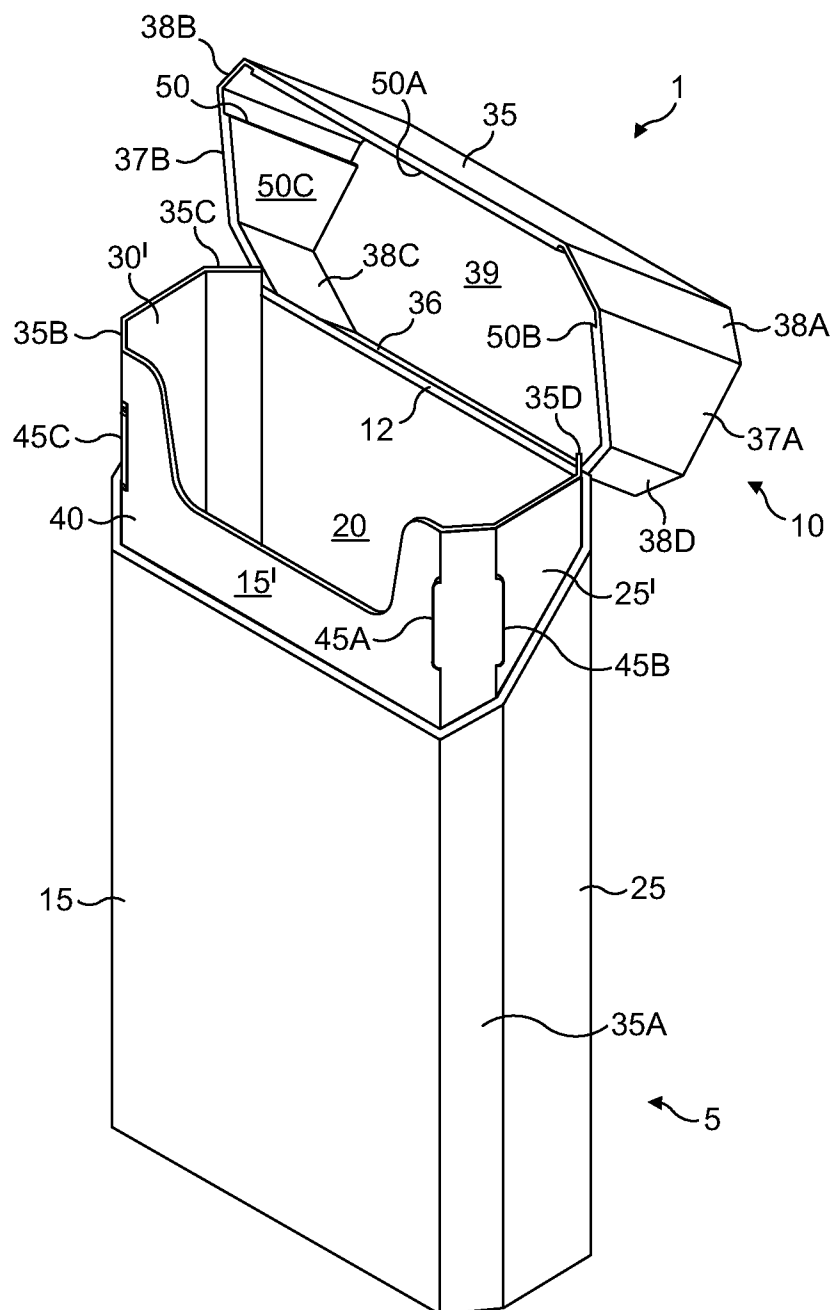


FIG. 1

2 / 7

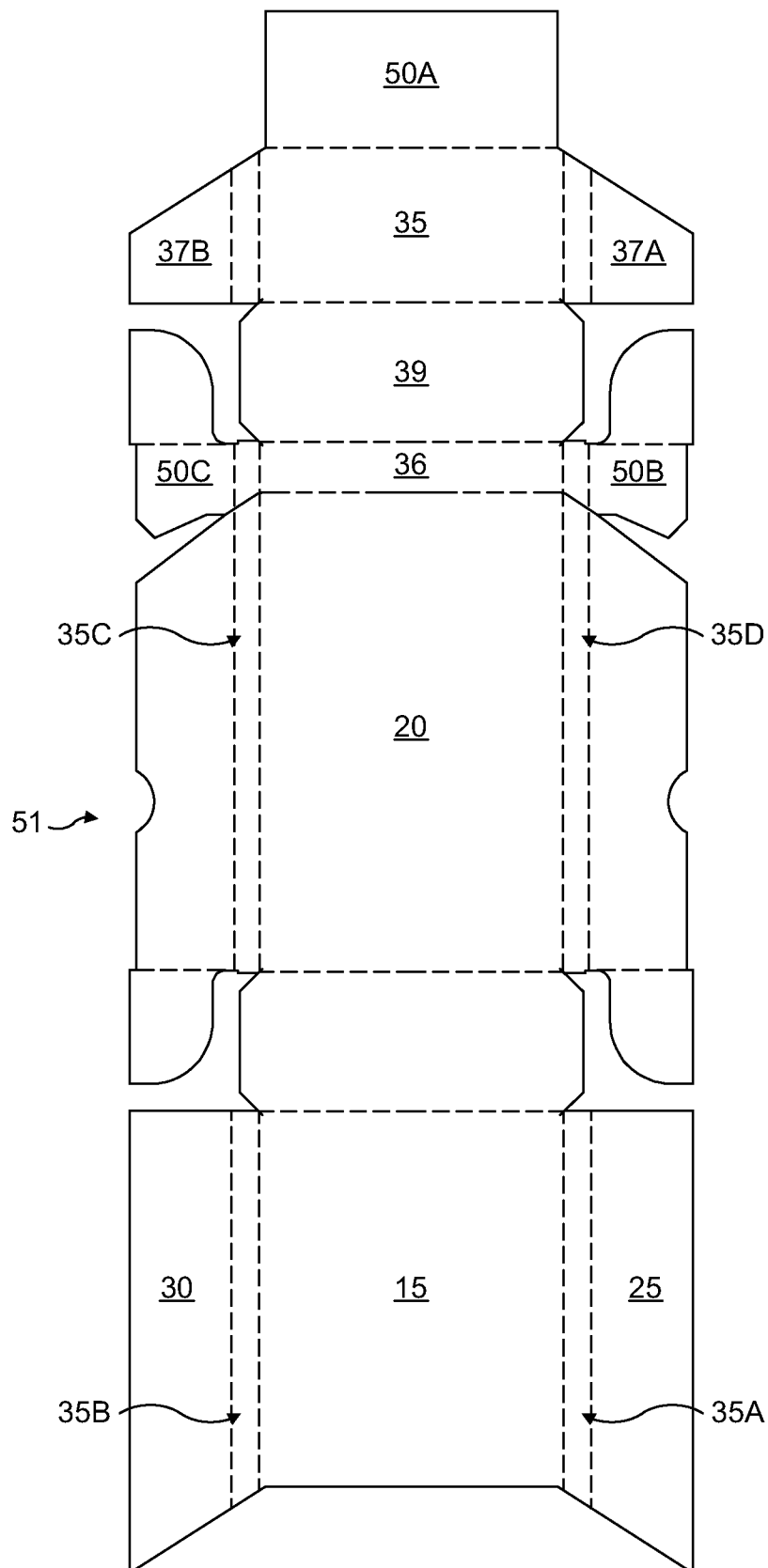


FIG. 2

3 / 7

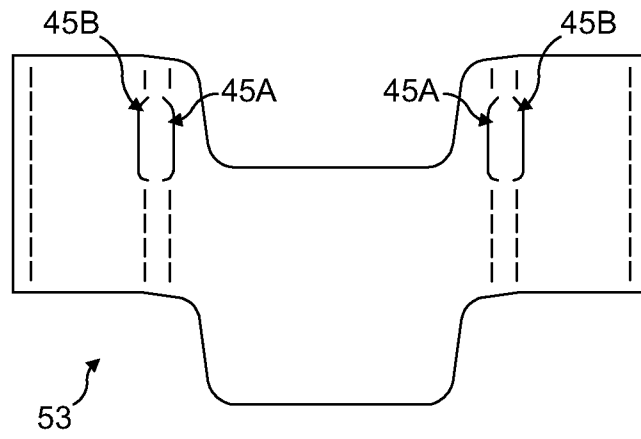


FIG. 3

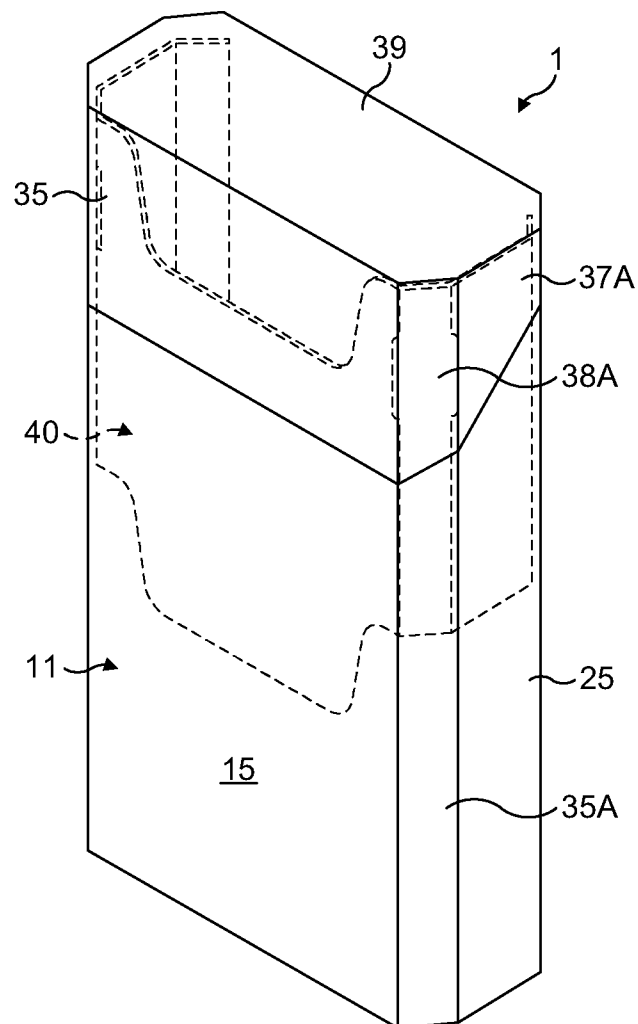


FIG. 4

4 / 7

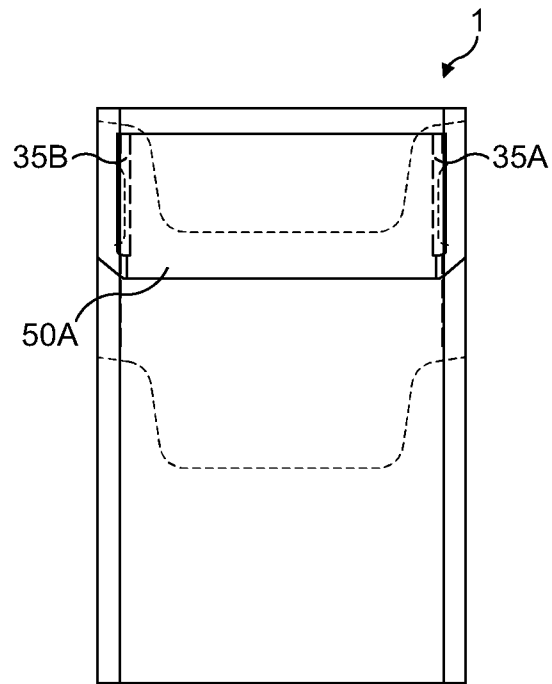


FIG. 5

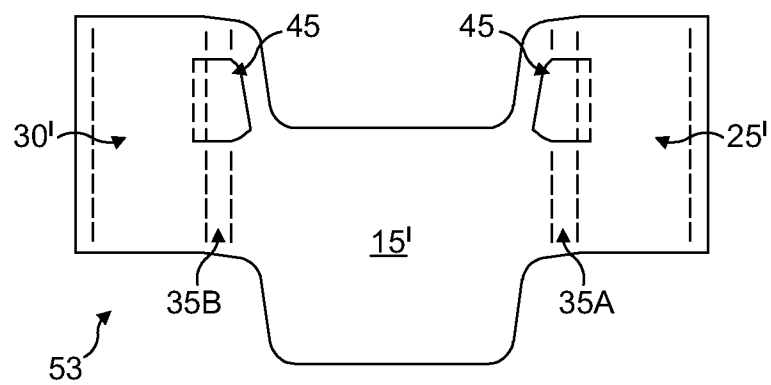


FIG. 6

5 / 7

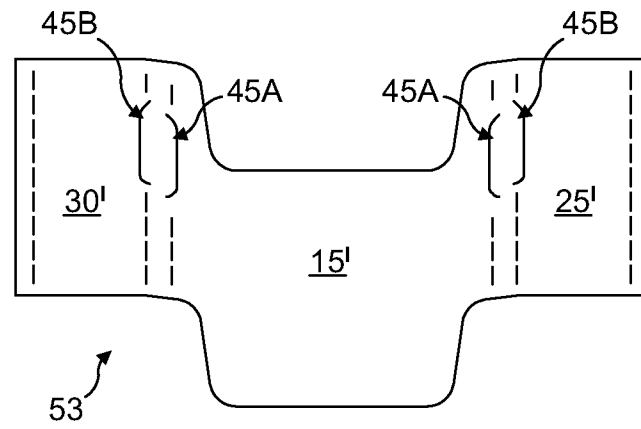


FIG. 7

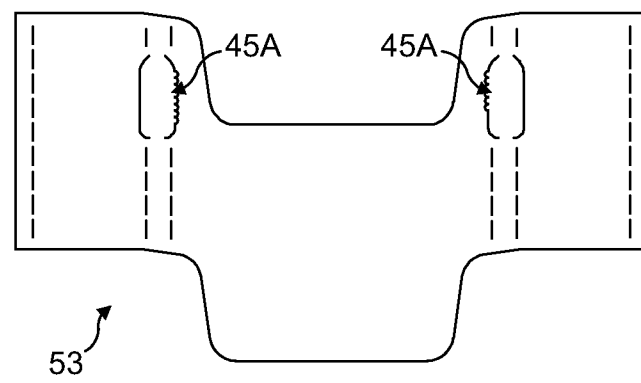


FIG. 8

6 / 7

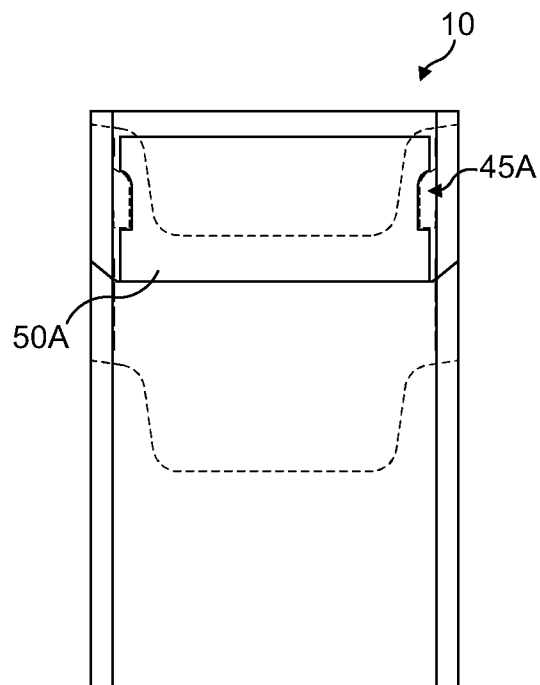


FIG. 9

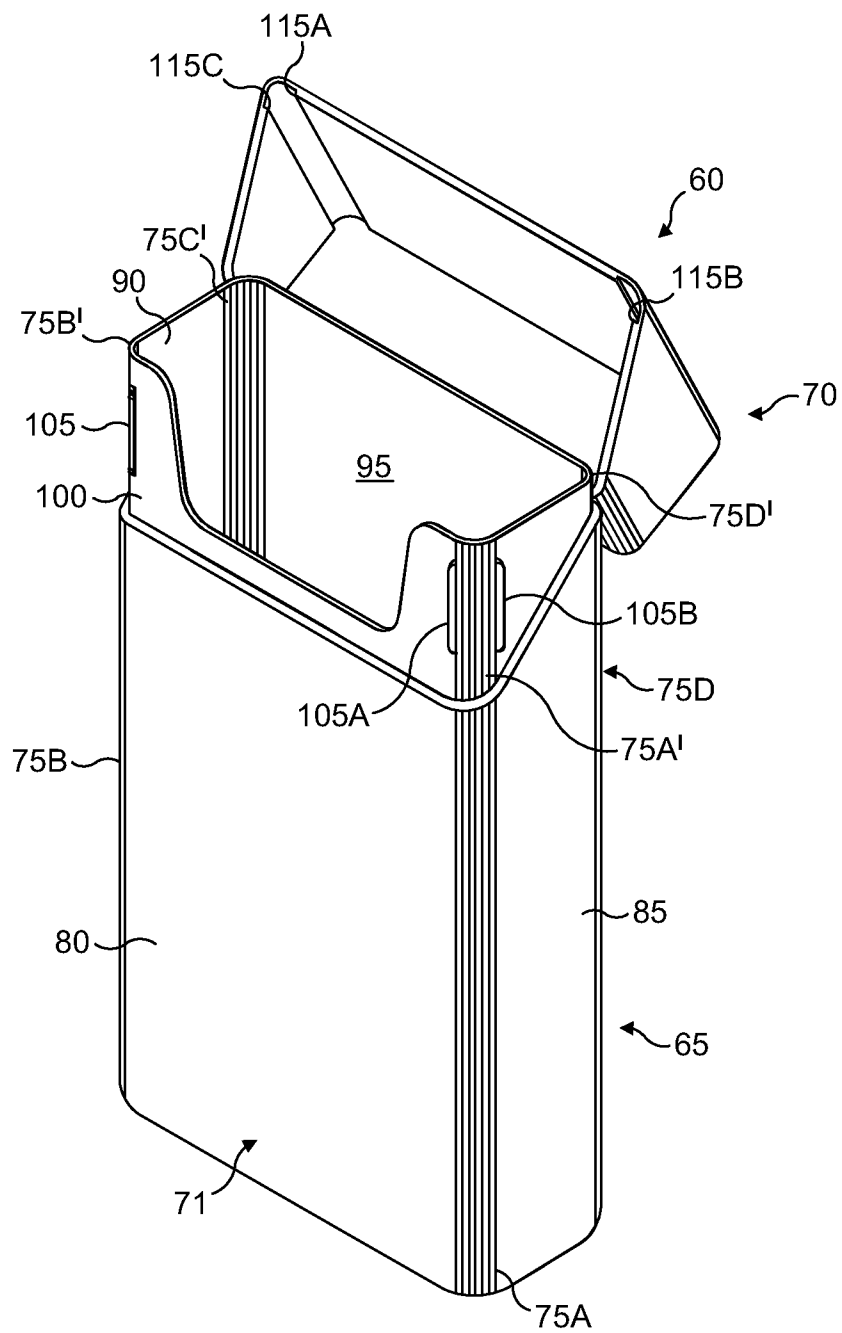


FIG. 10

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2011/061965

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D85/10 B65D5/66
ADD.

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	EP 0 204 933 A1 (FOCKE & CO [DE]) 17 December 1986 (1986-12-17) page 7, paragraph 1; figures 7, 8 -----	1-9
X	US 2002/179464 A1 (FOCKE HEINZ [DE] ET AL) 5 December 2002 (2002-12-05) claim 5; figure 5 -----	1-9
X	US 2009/272660 A1 (ENGLAND JOHN [US]) 5 November 2009 (2009-11-05) paragraph [0029]; figure 3 -----	1-9



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 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

10 August 2011

Date of mailing of the international search report

22/08/2011

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Cazacu, Corneliu

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2011/061965

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 10, 11
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 10, 11

Subject-matter of claims 10, 11 unclear.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2011/061965

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0204933	A1	17-12-1986	BR 8601959 A 06-01-1987
		CA 1277296 C 04-12-1990	
		CN 86103037 A 07-01-1987	
		JP 1914283 C 23-03-1995	
		JP 6037209 B 18-05-1994	
		JP 62016334 A 24-01-1987	
		US 4753384 A 28-06-1988	

US 2002179464	A1	05-12-2002	NONE

US 2009272660	A1	05-11-2009	US 2010059395 A1 11-03-2010
