



(51) International Patent Classification:

B65D 81/03 (2006.01) **B65D 63/10** (2006.01)
B65D 77/04 (2006.01) **B65D 81/113** (2006.01)
B65D 65/08 (2006.01) **B65B 13/00** (2006.01)
B65D 85/38 (2006.01)

(21) International Application Number:

PCT/US2010/054354

(22) International Filing Date:

27 October 2010 (27.10.2010)

(25) Filing Language:

English

(26) Publication Language:

English

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(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, 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, SD, SL, SZ, TZ, UG, 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).

Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i))

[Continued on next page]

(54) Title: PACKAGING SYSTEM AND METHOD

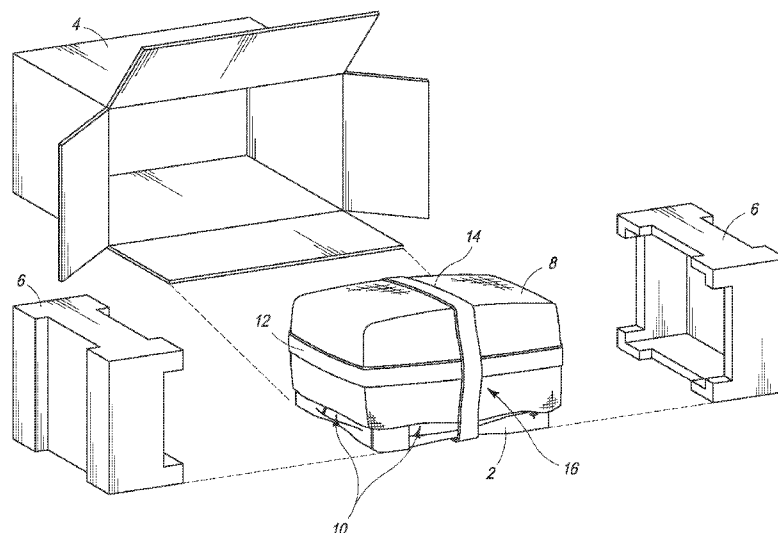


FIG. 1

(57) Abstract: In one embodiment, a packaging system includes a container, a durable cover, an opening in the cover through which the article may be uncovered, and first and second loops. The durable cover is configured to cover the article inside the container and to cover the article outside the container. The first and second loops are configured to encircle the cover and the article in the container, such that both loops are graspable simultaneously to remove the covered article from the container.



— *as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii))*

Published:

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

PACKAGING SYSTEM AND METHOD

BACKGROUND

[0001] Computers, printers, and other electronic devices are carefully packed in their retail containers to protect the articles during shipping. Disposable end caps and other elements are often used in the packaging to ensure a tight fit.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] The accompanying drawings illustrate various embodiments and are a part of the specification. The illustrated embodiments are merely examples and do not limit the scope of the claims. Throughout the drawings, identical reference numbers designate similar, but not necessarily identical elements.

[0003] FIG. 1 is an exploded perspective view illustrating a packaging system, according to one embodiment of the disclosure.

[0004] FIGS. 2A and 2B are perspective views of the packaging system of FIG. 1.

[0005] FIG. 3 is a detailed perspective view of the durable cover and the first and second loops comprised within the packaging system of FIG. 1, after removal of the article from the container.

[0006] FIGS. 4A, 4B and 4C illustrate a cover with a connected flap, according to an embodiment of the disclosure.

[0007] FIGS. 5-7 illustrate a cover and first and second loops, wherein at least one of the loops is affixed or secured to the cover, according to embodiments of the disclosure.

DETAILED DESCRIPTION OF EMBODIMENTS

[0008] Removal of an electronic article from its packaging has been accomplished in the past by turning the retail box upside down and shaking the box to cause the article to drop out, or by using hands (or sometimes hands and

knees) to pull the printer out of the box. Difficulty in removing an article from its packaging, especially if such difficulty results in damage to the article, can result in an unsatisfactory customer experience. Furthermore, it is common for the packaging materials used to within the container to be single-use materials. The customer experience can also be negatively impacted if the packaging materials utilized are perceived as being excessive or wasteful. Various embodiments of the present disclosure were developed in an effort to provide a method and a system for packaging that utilizes first and second loops that encircle an article, and a durable cover, such that both loops are graspable simultaneously to remove the covered article from the container. The disclosed system and method for packaging leads to better ease of use, a reduction in waste, and a better customer experience.

[0009] FIG. 1 is an exploded perspective view illustrating a packaging system, according to one embodiment of the disclosure. In this example, a printer or other electronic article 2 is packaged within a retail container 4, the container 4 to enclose and protect the article 2 during handling and shipping of the article 2. As used in this specification and the appended claims, a "container" means an object, including but not limited to a box, used to hold an article when the article is being stored or transported. As used in this specification and the appended claims, an article is any object or item. In this example molded end caps 6 are utilized to ensure a tight fit for the article 2 within the container 4.

[0010] The disclosed packaging system includes a durable cover 8 configured to cover and protect the article 2 inside the container 4, and additionally configured to cover and protect the article 2 outside the container, i.e. after removal of the article 2 from the container 4. As used in this specification and the appended claims, to cover an article means to put something over at least the upper surface of that article.

[0011] In this example, the durable cover 8 comprises five sides, and an opening 10 through which the article 2 may be removed from under the cover 8. In this example, the durable cover 8 is configured to serve as a protective layer to help protect the article 2 from damage from impact and/or damage from water or

other liquids while the article 2 is in the container 4. The durable cover 8 is also configured for use as a removable, reusable dustcover for the article 2 after removal of the article 2 from the container 4.

[00012] The packaging system includes a first loop 12 and a second loop 14, each loop configured to encircle the cover 8 and the article 2 in the container 4 such that both loops are graspable simultaneously to remove the covered article from the container 4. In embodiments, the loops are at least approximately in a circular, elliptical, oval or rectangular shape. In the illustrated embodiment, the first 12 and second 14 loops form a criss-cross 16 that is graspable to remove the covered article from the container 4. In other embodiments, more than two loops may be utilized. As used in this specification and the appended claims, loops are said to form a "criss-cross" if a portion of a loop intersects, or crosses over, a portion of another loop.

[00013] In the pictured embodiment, the first 12 and second loops 14 are discrete pieces of a material. In another embodiment the first and second loops may both be part of a single piece of material. In embodiments, the first and/or second loops may be in the form of a webbing, rope, or line. In other embodiments, the first and/or second loops may comprise a band, strap or tubing. In embodiments, the first and/or second loops may comprise a fabric. In embodiments, the first and/or second loops may comprise a polyester or other woven material. In embodiments, the first and second loops may comprise a polypropylene or other nonwoven material.

[00014] FIGS. 2A and 2B are perspective views of the packaging system of FIG. 1. FIG. 2A illustrates the container 4 with the container's flaps partially opened for removal of the article. Portions of the covered article 18, and the first 12 and second 14 loops, are visible through the opening in the container 4. FIG. 2B illustrates that in this embodiment the first 12 and second 14 loops are graspable simultaneously with one hand to remove the covered article 18 from the container 4. In this example the first 12 and second 14 loops form a criss-cross 16, and the user grasps the criss-cross 16 to remove the covered article 2. In another embodiment, the first and second loops may be positioned such that

there is no criss-cross, yet the loops are graspable simultaneously to remove the covered article.

[00015] FIG. 3 is a detailed perspective view of the durable cover and the first 12 and second 14 loops comprised within the packaging system of FIG. 1, after removal of the article 2 from the container 4 (Fig. 1). In embodiments, the cover may be comprised of a fabric. In an embodiment, the cover 8 comprises a nonwoven polypropylene material at approximately 80 gsm density. In another embodiment, the durable cover 8 comprises a woven 210D polyester material having a thickness of approximately .07mm and a density of approximately 54 gsm. In other embodiments, the durable cover 8 may be constructed of other fabrics or other durable materials, and in other thicknesses and densities.

[00016] The durable cover 8 is constructed in generally a same shape 22 as the shape of the article 2, such that the opening 10 in the cover 8 is has generally the same dimensions as broadest portion of the article 2. In other embodiments the portion of the cover 8 that forms the opening 10 may include an elastic or other expandable material, or a drawstring or other closing device. The expandable material or closing device allows the size of the opening 10 can be changed, for ease in installing and removing the cover 8. The expandable material or closing device may also allow the cover 8 to be used with different sized articles. In an embodiment the cover 8 may include an expandable material and a closing device.

[00017] In FIG. 3 the first 12 and second 14 loops are shown removed from the durable cover 8 and the article 2. In this embodiment, the first 12 and second 14 loops are discrete pieces of material, each piece having approximately a same width and thickness. In other embodiments, the first and second loops may have differing widths and thicknesses from one another. In an embodiment, each of the first 12 and second 14 loops comprises a nonwoven polypropylene material at approximately 85 gsm density, having a width of approximately 1.25 inches and a thickness of approximately .09 mm. In another embodiment, the first and second loops may each comprise woven 210D polyester material, having a width of approximately 1.25 inches and a thickness of approximately .07 mm.

[00018] FIGS. 4A, 4B and 4C illustrate a cover 8 with a connected flap 24, according to an embodiment of the disclosure. FIG. 4A illustrates a sturdy cover in a first position 26, in which the article 2 is covered. The flap 24 is configured to cover the opening 10 while the cover is in the first position 26. Moving to FIG. 4B, in an embodiment, a Velcro ® tab, a snap or another form of fastener 28 may be utilized to removably secure the flap 24 and hold the cover 8 in the first position 26. When the flap 24 is detached 32 from the fastener 28, the cover 8 is movable 34 towards a second position 30 (Fig. 4C) in which the article 2 is uncovered. FIG. 4C illustrates the cover 8 in the second position 30 at which the article 2 is uncovered. In this embodiment, when the cover 8 is in the second position 30 the flap 24 remains in contact with a bottom portion of the article 2 while the remainder of the article 2 is uncovered.

[00019] FIG. 5 illustrates a cover 8 and first 12 and second 14 loops according to an embodiment of a packaging system, wherein the first 12 and second 14 loops are affixed to the cover 8. In this example, the first 12 and second loops 14 are distinct pieces of material each configured to encircle the cover 8 and the article 2 in the container 4 (Fig. 1) such that both loops are grippable simultaneously to remove the covered article from the container. The first loop 12 and the cover 8 are sewn together at two points (a first point of sewing 36 is visible in Fig. 5). The second loop 14 and the cover 8 are sewn together at a second point 38, at a side of the cover 8 opposite the opening 10, so as to permit the second loop 14 to be easily moved away 40 from the opening 10. Moving the second loop 14 away from the opening 10 allows for removal of the article 2 from under the cover 8 through the opening 10. In embodiments, the first 12 and/or second 14 loops may be affixed to the cover 8 in a manner other than by sewing, including utilizing glue, and/or utilizing a fastener such as a staple, snap, grommet or the like.

[00020] FIG. 6 illustrates a durable cover 8 and first 12 and second 14 loops according to an embodiment of the disclosure, wherein the first loop 12 is secured to the cover 8 and the second loop 14 is not secured to the cover 8. In this example, the first 12 and second loops 14 are distinct pieces of material each

configured to encircle the cover 8 and the article 2 in the container 4 (Fig. 1). The first 12 and/or second 14 loops are capable of being clutched simultaneously by one hand to remove the covered article from the container. The first loop 12 and the cover 8 are stitched together at two points (one stitching point 36 is visible in Fig. 6). The second loop 14 is not secured to the cover 8 or to the first loop 12. After removal of the covered article from the container, the second loop 14 may be easily slid off of the covered article to allow the cover 8 to be removed from the article 2.

[00021] FIG. 7 illustrates a durable cover 8 and first 12 and second 14 loops according to an embodiment of the disclosure, wherein the first loop 12 and the second loop 14 are parts of a single piece of webbing configured to encircle the cover 8 and the article 2 in the container (Fig. 1). Both loops are grippable simultaneously to remove the covered article from the container. In this embodiment a user could, after removal of the covered article, cut or snip the first 12 or the second 14 loop to facilitate removal of the webbing from the covered article.

[00022] The preceding description has been presented only to illustrate and describe embodiments and examples of the principles described. This description is not intended to be exhaustive or to limit these principles to any precise form disclosed. Many modifications and variations are possible in light of the above teaching.

What is claimed is:

- 1 1. A packaging system, comprising:
2 a container;
3 a durable cover configured to cover an article inside the container and to
4 cover the article outside the container;
5 an opening in the cover through which the article may be uncovered; and
6 first and second loops each configured to encircle the cover and the article
7 in the container such that both loops are graspable simultaneously to remove the
8 covered article from the container.
- 1 2. The packaging system of claim 1, wherein the loops are graspable
2 simultaneously with one hand to remove the covered article from the container.
- 1 3. The packaging system of claim 1, wherein the first and second
2 loops form a criss-cross that is graspable to remove the covered article from the
3 container.
- 1 4. The packaging system of claim 1, wherein the opening comprises
2 an opening through which the article may be removed from under the cover.
- 1 5. The packaging system of claim 1, wherein the cover comprises five
2 sides.
- 1 6. The packaging system of claim 1, further comprising a flap
2 connecting to the cover, the flap to
3 cover the opening when the cover is in a first position covering the article,
4 and
5 allow movement of the cover to a second position in which the article is
6 uncovered.
- 1 7. The packaging system of claim 1, wherein the first and second
2 loops are part of a single piece of material.

1 8. The packaging system of claim 1, wherein the first and second
2 loops are discrete pieces of material.

1 9. The packaging system of claim 1, wherein the cover comprises a
2 cover made of a fabric.

1 10. The packaging system of claim 1, wherein at least one of the first
2 loop and the second loop is affixed to the cover.

1 11. The packaging system of claim 1, wherein the cover is generally a
2 same shape as the article.

1 12. The packaging system of claim 1, wherein the first and second
2 loops comprise webbing.

1 13. A packaging system, comprising:
2 a container;
3 a sturdy fabric cover configured to cover the article inside the container
4 and to cover the article outside the container, the cover having approximately the
5 same shape as the article;
6 an opening in the cover through which the article may be removed from
7 under the cover;
8 a first loop and a second loop comprised of discrete pieces of webbing,
9 each loop configured to encircle the cover and the article in the container; and
10 a criss-cross formed by the first and second loops, grippable by one hand
11 to remove the covered article from the container.

1 14. The packaging system of claim 13, wherein the first loop and
2 second loops are secured to the cover.

1 15. A method of packaging to protect an article and allow easy removal
2 from a container, the method comprising:
3 covering the article inside the container with a durable cover that

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4 has generally the same outline as the article,
5 is configured to cover the article after removal from the container,
6 and
7 includes an opening through which the article may be uncovered;
8 and
9 encircling the cover and the article inside the container with first and
10 second loops capable of being clutched simultaneously by one hand, for removal
11 of the covered article from the container.

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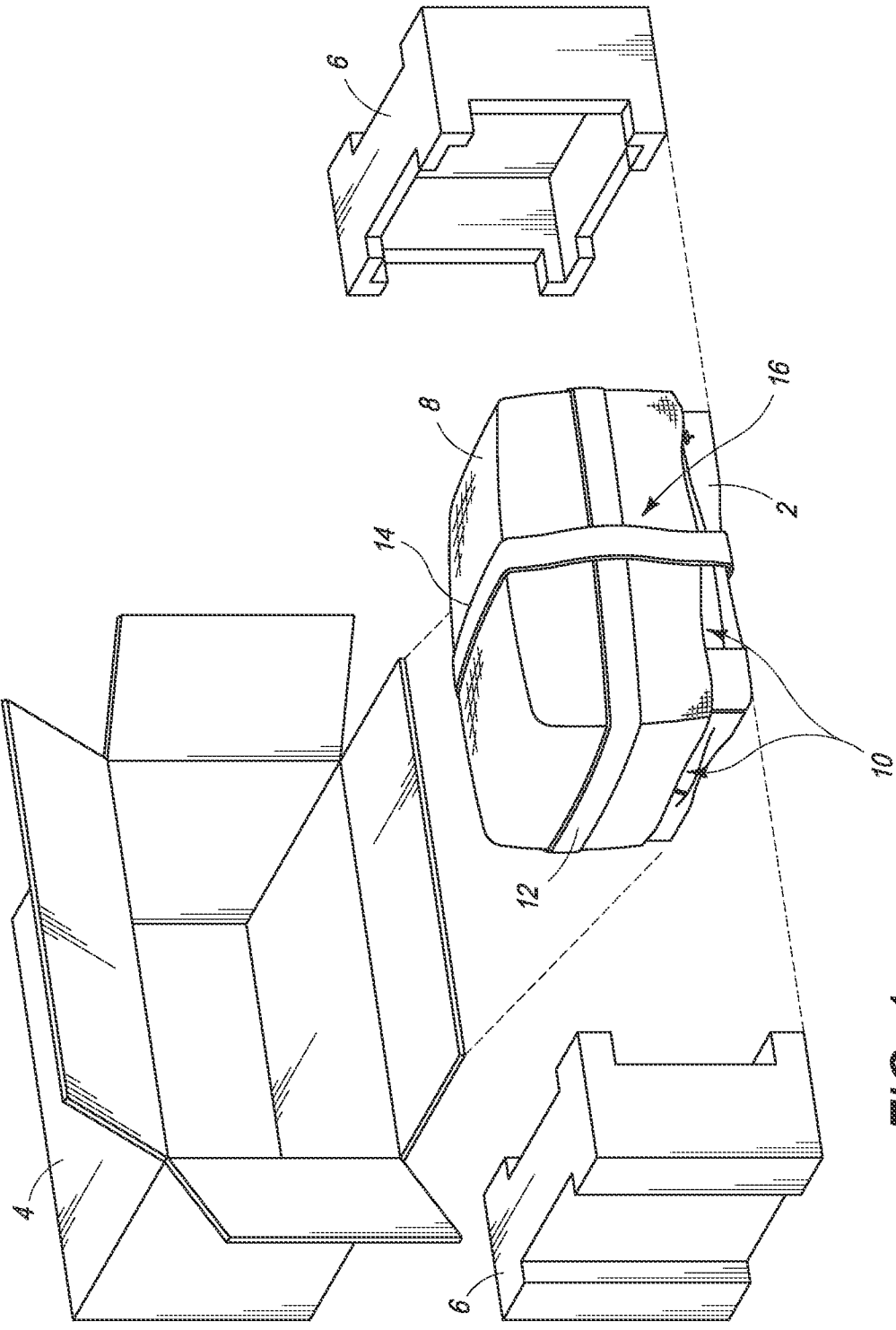


FIG. 1

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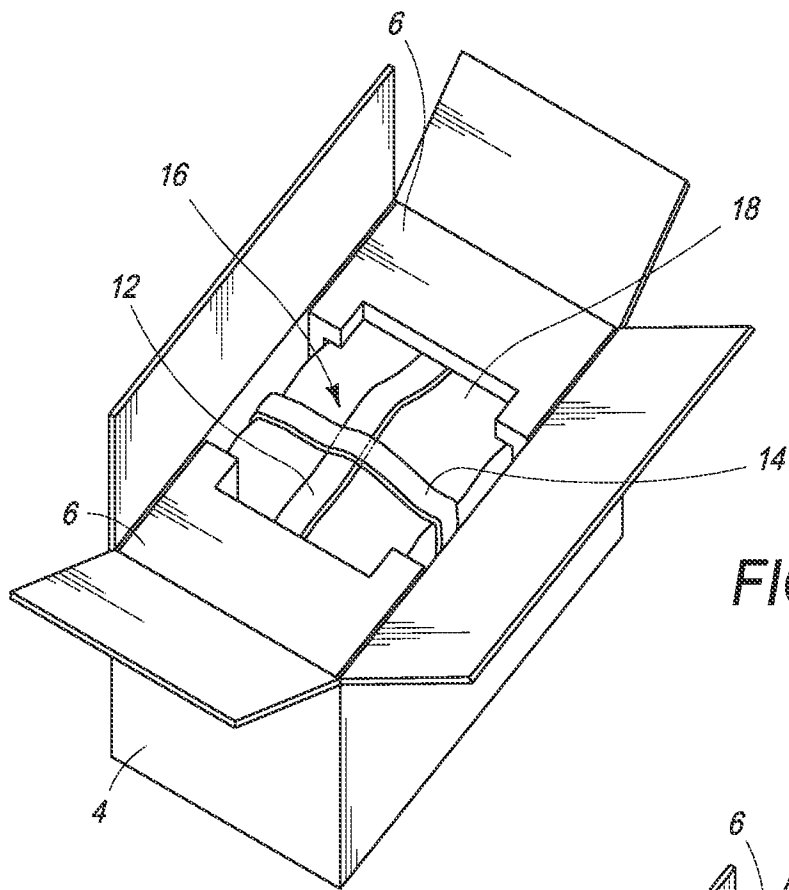
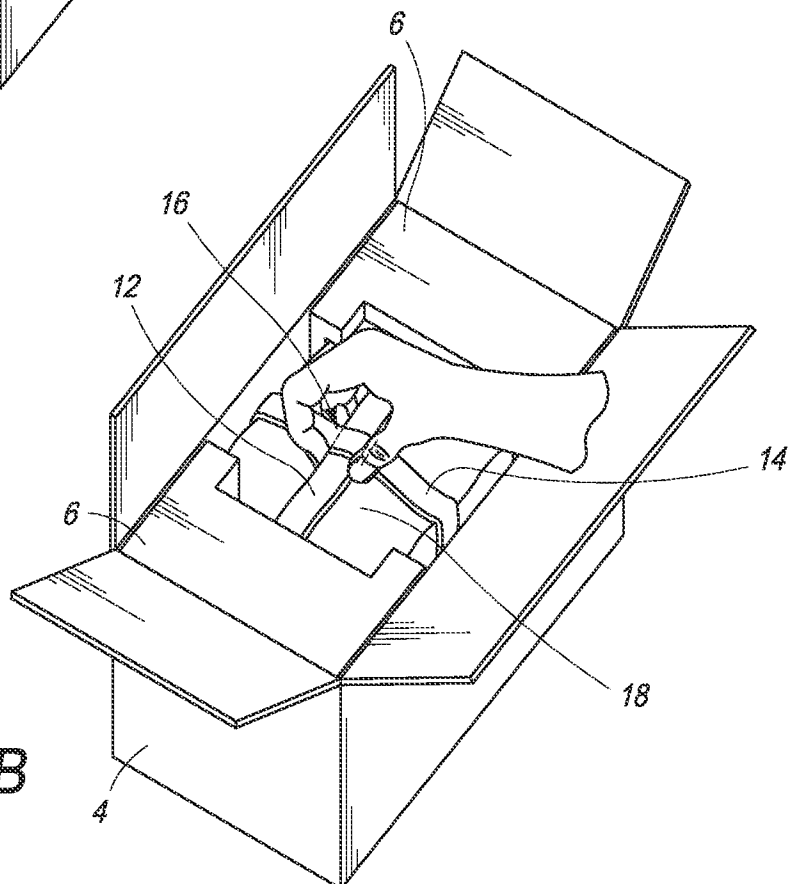


FIG. 2A

FIG. 2B



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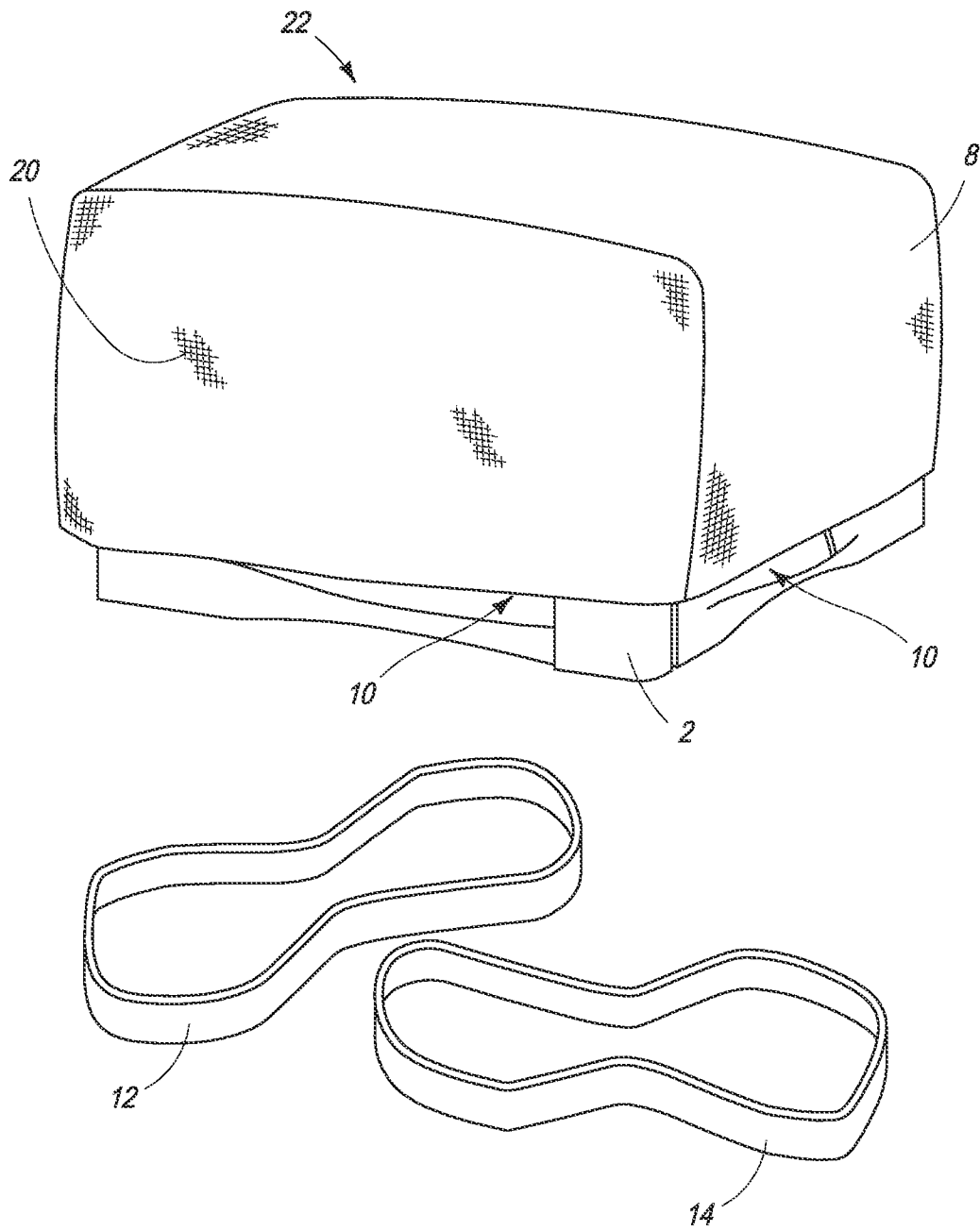


FIG. 3

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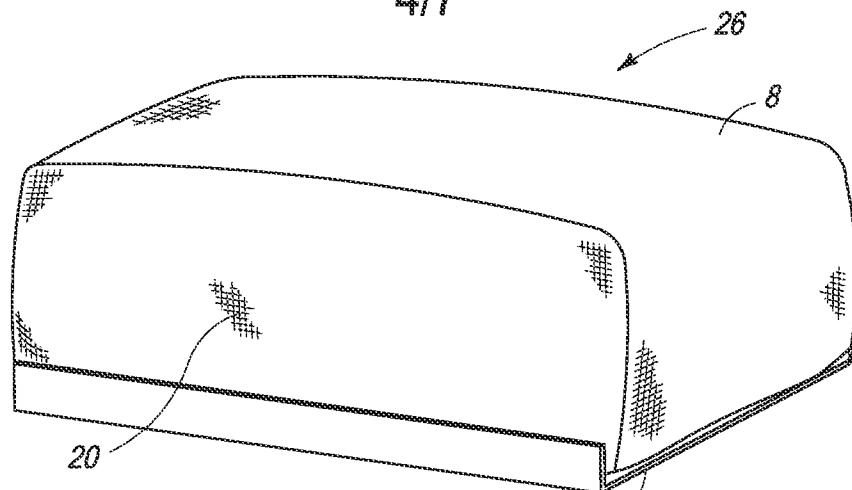


FIG. 4A

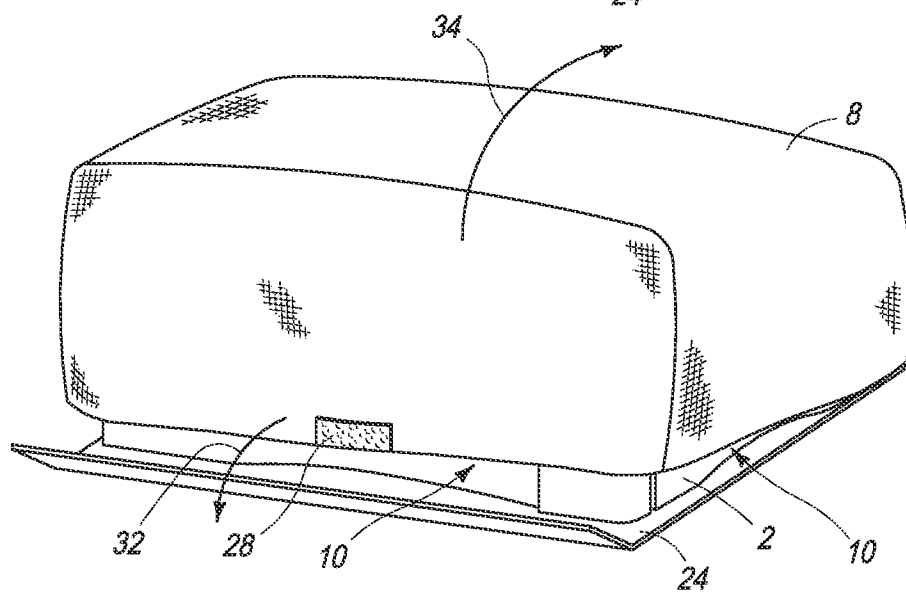
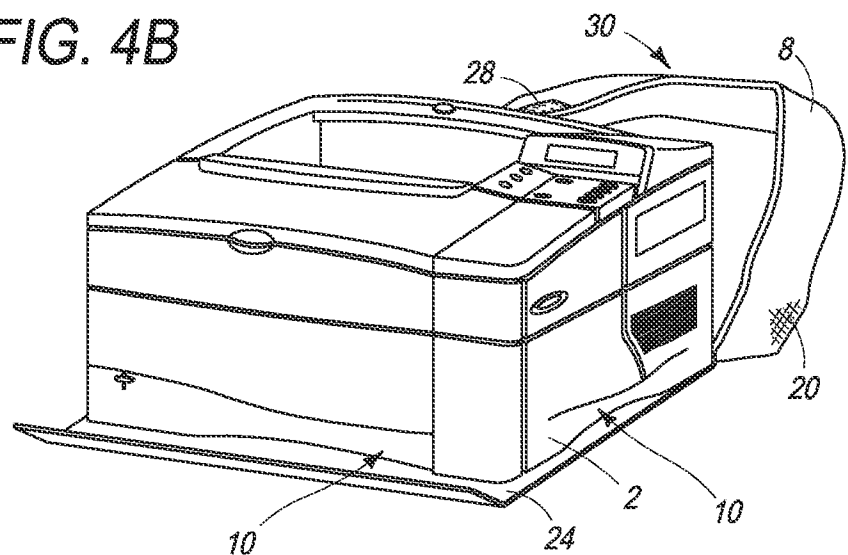


FIG. 4B

FIG. 4C



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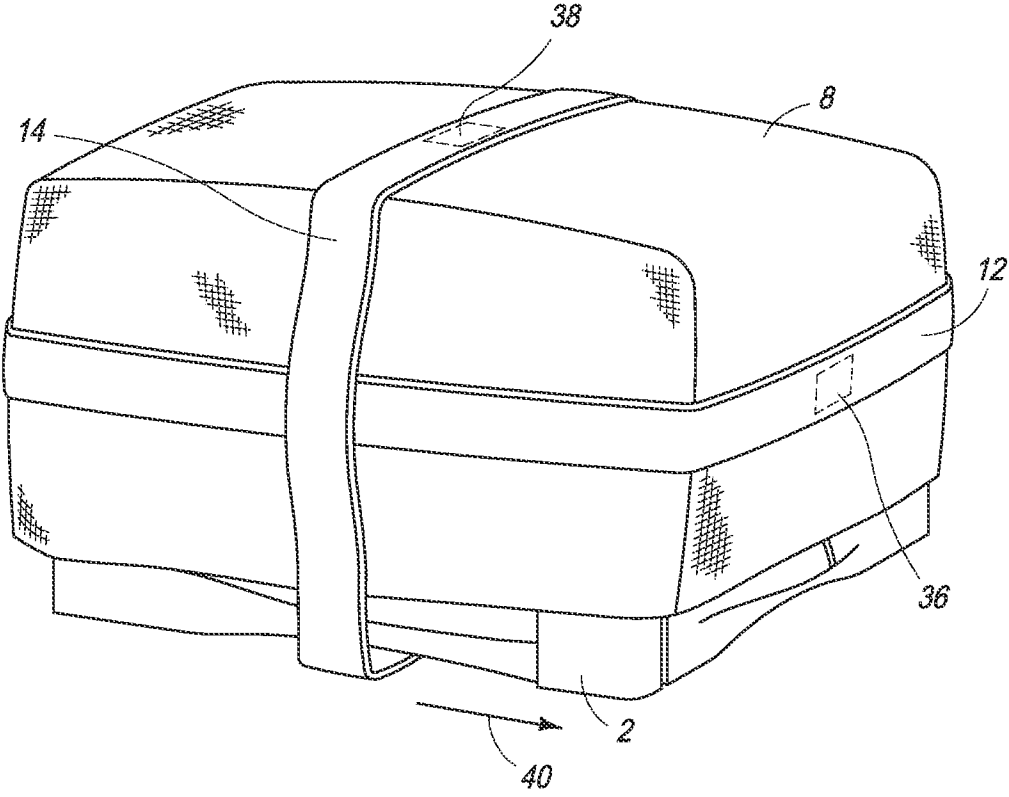


FIG. 5

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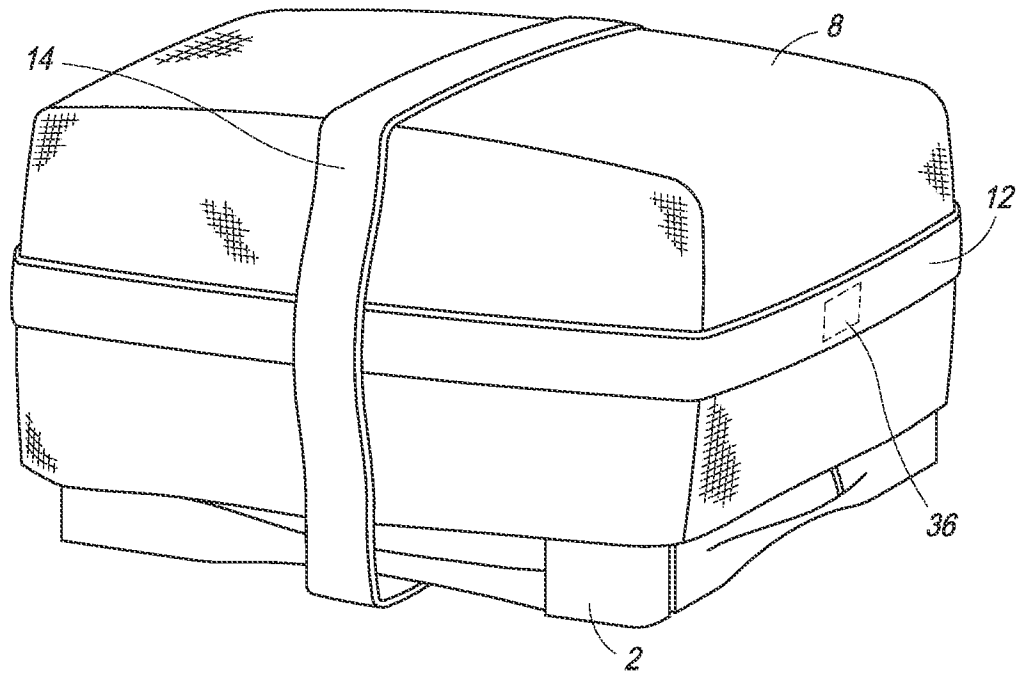


FIG. 6

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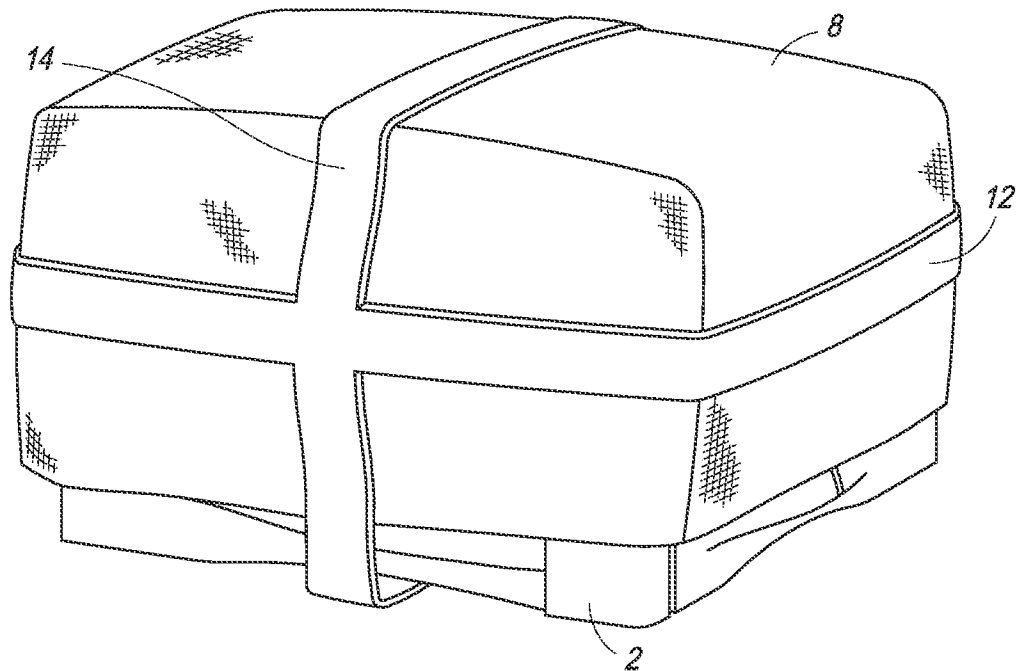


FIG. 7

A. CLASSIFICATION OF SUBJECT MATTER

B65D 81/03(2006.01)i, B65D 77/04(2006.01)i, B65D 65/08(2006.01)i, B65D 85/38(2006.01)i, B65D 63/10(2006.01)i, B65D 81/113(2006.01)i, B65B 13/00(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)

B65D 81/03; B65D 85/68; B65D 5/42; B65B 67/00; B65D 30/10; B65D 81/113; B65D 19/00; B65D 5/54

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: package, cover, container, band, loop.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2006-256618 A (OKUDA TOSHIKO) 28 September 2006 See claim 1 and figure 2.	1-15
A	JP 2005-231655 A (ORION DENKI KK) 02 September 2005 See figure 2.	1-15
A	US 06044974A A (WEBB; H. RICHARD et al.) 04 April 2000 See figure 1.	1-15
A	JP 2002-347748 A (MATSUSHITA ELECTRIC IND CO LTD) 04 December 2002 See figure 1.	1-15



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

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"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

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"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

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Date of the actual completion of the international search

25 JULY 2011 (25.07.2011)

Date of mailing of the international search report

25 JULY 2011 (25.07.2011)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/054354Patent document
cited in search reportPublication
datePatent family
member(s)Publication
date

JP 2006-256618 A

28.09.2006

None

JP 2005-231655 A

02.09.2005

None

US 06044974A A

04.04.2000

None

JP 2002-347748 A

04.12.2002

None