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(54) **Package and method of manufacturing and using the same**

(57) A package (1) includes a plurality of walls (2a, 2b, 3 to 6) which define a chamber for receiving products therein. At least one (4) of said walls includes an inner and an outer sheet member forming a cavity therebe-

tween. A product sample (28) is arranged in said cavity and said outer member has provided therein an opening (27), whereby the product sample (28) is exposed to sensorial perception from the exterior of the package through said opening.

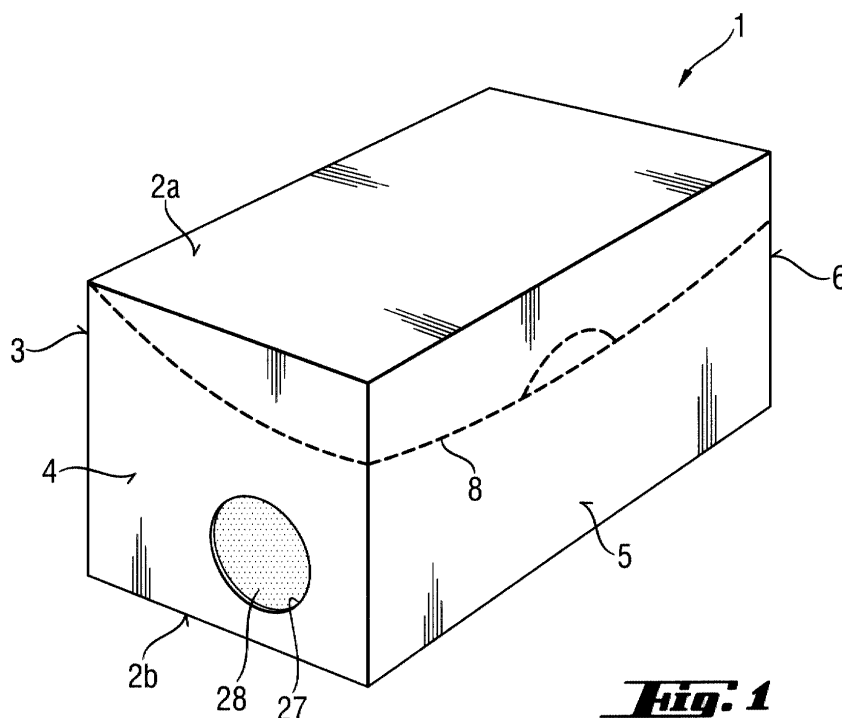


Fig. 1

Description

[0001] The present invention relates to packages adapted for use with products intended to be displayed, particularly at points of sale/purchase.

[0002] A well established approach in that respect is to provide the outer surface of the package with printed matter providing a representation (typically in the form of a photograph or a drawing) and/or a description of the products contained therein.

[0003] Recent trade surveys in North America and in Europe have shown that about 3 - 5% of the packages on shelf at sales outlets such as supermarkets and the like are opened by consumers not satisfied with the product information provided by printing on the package.

[0004] Such a trend appears to be particularly evident in connection with those products whose features are better perceived by visual inspection, touching or smelling the product directly.

[0005] Attempts have thus been made of satisfying the need of having a direct "feel" of the product by providing at least one open package per product on the shelf. Such a solution is hardly satisfactory since, in any case, a certain amount of product has to be finally discarded.

[0006] Packages such as cans or pressurised containers for paint or varnishes quite often bear a "sample" of the product contained therein painted or sprayed on the package itself. Most obviously, such a solution is practicable only in connection with products adapted to be painted or sprayed.

[0007] Also, garments such as shirts or the like are oftentimes sold in packages which are either provided with a transparent window (thus enabling the product to be inspected without opening the package) or bear a small sample of fabric (representative of the item contained in the package) applied on the package itself.

[0008] Irrespective of other drawbacks (e.g. the sample may be easily removed), these solution do not enable the purchaser or prospected purchaser to have a direct feeling of the "touch" and/or any possible smell or fragrance conveyed by the product.

[0009] The present invention aims at providing a solution enabling the drawbacks outlined in the foregoing to be overcome.

[0010] According to the present invention, such an object is achieved by means of a package having the features set forth in the annexed claims. The invention also relates to methods of manufacturing and using such a package.

[0011] In the presently preferred embodiment, the arrangement of the invention permits a product sample to be attached to the outside of a package such as a cardboard package.

[0012] The arrangement of the invention has, i.e. the advantages that:

- the product sample cannot be easily removed,
- the distribution system for the package is unchanged while avoiding sample damage/contamination during transportation, and
- the sample can be already associated to the package at the stage of manufacturing the package itself, thus dispensing with the need for additional handling e.g. as the package is being filled or being prepared for display at the point of purchase.

[0013] In a particularly preferred embodiment, the package of the invention is the form of a double-walled cardboard package provided with a partially cut window to display a sample of the product(s) contained therein thus enabling superior product communication at the point of purchase.

[0014] Preferably, the arrangement of the invention provides for a flat sample of a product (as used herein the term "product" also includes any sort of component/material included in an article of manufacture) to be applied onto the inner sleeve of a cardboard package, this step being adapted to be carried out already as the package is being manufactured. The inner sleeve is then affixed (e.g. glued) to the outer sleeve of the package, showing the product sample through a window cut into the outer sleeve.

[0015] In general terms, the arrangement of the invention is adapted for use in connection with products such as flat products where a tactile or olfactory perception of the features and benefits of the product by the consumer/ prospected consumer is sought. The olfactory perception may be ensured by means of micro-encapsulated fragrance, released e.g. via scratch-and-sniff means.

[0016] In order to protect the product sample, the window may be covered with a removable, transparent label.

[0017] The invention will now be described, by way of example only, in connection with the enclosed drawing figures, wherein:

- figure 1 is a general perspective view of a package according to the invention,
- figure 2 shows a flat cardboard blank for realising the package of figure 1, and
- figure 3 schematically shows the blank of figure 2 while been processed in order to realise the package of figure 1.

[0018] A package intended for use in connection with products such as e.g. sanitary products (sanitary diapers or towels, pantliners, absorbing articles of various kind, napkins, etc.) is generally designated 1.

[0019] In the exemplary embodiment shown, package

1 is the form of parallelepiped box including top and bottom walls 2a, 2b as well as side walls designated 3 to 6 jointly defining a chamber for receiving products therein.

[0020] A tear line 8 is preferably provided extending through one or more of side walls 3 to 6 in the vicinity of top wall 2a. Tear line 8 enables the upper portions of package 1 to be at least partly detached from the rest of package 1 in order to form an upper cover or lid adapted to be lifted or removed in order to access the products (not shown) contained in package 1.

[0021] Those skilled in the art will promptly appreciate that the specific features of package 1 referred to in the foregoing are in no way intended to limit the scope of the invention. The invention is adapted to be applied to packages of any shapes and dimensions, irrespective of whether those packages are provided with parts intended to form covers or lids and/or irrespective of the presence of opening means such as tear line 8. Also, the very nature of the products contained in package 1 is by itself largely immaterial to the invention.

[0022] In the presently preferred embodiment, package 1 is comprised of a sheet-like material such as thin cardboard.

[0023] More preferably, package 1 is assembled starting from single blank 10 of the captioned sheet-like material.

[0024] As shown in figure 2, blank 10 includes a strip-like member 11 provided with transverse fold lines 12 subdividing strip member 11 in a plurality of portions designated 13 to 16 and 24 to 26, respectively.

[0025] Extending sidewise from portions 13 to 16 are further side portions designated 31, 41, 51, 61 and 32, 42, 52 and 62. Each of these latter portions is provided with respective proximal portions connected to portions 13 to 16 along respective fold lines 31a, 41a, 51a, 61a and 32a, 42a, 52a and 62a co-extensive with strip member 11.

[0026] As better shown in figure 3, strip member 11 is bent and wound in a spiral-like fashion to produce package 1. More specifically, portions 13 to 16 of strip-like member 11 define the outer side walls 3 to 6 of package 1 while portions 24 to 26 are enclosed within the inner volume of package 1 by resting against portions 14 to 16.

[0027] More specifically, portion 24 lies against portion 14 (i.e. side wall 4), section 25 lies against section 15 (i.e. side wall 5). Finally, portion 26 is caused to lie against section 16 (i.e. side wall 6). Side extensions 31, 41, 51 and 61 are bent inwardly to form top wall 2a of package 1. Similarly, side extensions 32, 42, 52, 62 are bent inwardly to form bottom wall 2b.

[0028] Tear line 8 is usually pre-formed in blank 10 while portion 25 (and, possibly, also portions 24 and 26) exhibit a notch-like recess extending in correspondence with tear line 8, generally at an at least slightly larger distance with respect to bottom wall 2b in order to form an abutment formation for the cover produced by tearing package 1 along tear line 8.

[0029] The whole of the foregoing corresponds to well known criteria currently adopted in the industry of manufacturing packages such as cardboard packages starting from flat cardboard blanks. This also applies to the methods (e.g. gluing, possibly with the use of termofusible adhesives, such as the adhesives currently referred to as "hot melts") used to ensure proper and stable connection of the various portions of blank 10 to provide the required solidity of package 1.

[0030] Preferably, the handling steps leading to the formation of package 1 starting from blank 10 are performed by means of automatic machinery of a known type, thus rendering any specific description of that machinery superfluous.

[0031] Reference 27 designates an opening such as a so-called "window" formed, e.g. by punching in one of the portions of strip-like member 11 intended to form one of the side walls of package 1.

[0032] In the exemplary embodiment shown herein, window 27 is provided in portion 14, i.e. in side wall 4. A thoroughly similar arrangement may however be provided in any other of the walls of package 1, including the possibility of possibly having similar arrangements associated to two or more of said walls.

[0033] Finally, reference numeral 28 designates a product sample such as a small portion of a product (such as a sanitary napkin, a pantiliner, a part of the so-called topsheet of an absorbent article) affixed by gluing, heat sealing, or any other suitable means to portion 24, e.g. the portion of sheet member 11 which, in package 1, once assembled, lies or rests against the inner surface of portion 14 wherein opening or window 27 is provided.

[0034] Portions 24 and 14 thus act as an outer and an inner member, respectively, defining therebetween a cavity. Product sample 28 is thus arranged in said cavity and said outer member i.e. portion 14 has provided therein an opening 27, whereby said product sample 28 is exposed to sensorial perception from the exterior of the package.

[0035] Sample 28 is thus exposed through window 27 once package 1 is assembled (see e.g. figure 1). In that way sample 28 can be subject to "perception" (i.e. visual, tactile and/or olfactory sensing) by the consumer or potential consumer without the need of opening package 1.

[0036] Sample 28 may thus be made exemplary of the features of the product(s) intended to be contained in package 1.

[0037] Sample 28 may include fragrance such as micro-encapsulated fragrance, possibly to be released by of scratch-and-sniff means. Exemplary of such means is the micro-encapsulated fragrance available as

[0038] Even though not expressly shown in the drawing, window 27 can be covered with a removable, preferably transparent label.

[0039] It will be appreciated that sample 28 is exposed to visual inspection and is adapted to be touched or

smelled without being exposed to the risk of being easily removed. Insertion in the cavity formed by sheet members 14 and 24 also enables sample 28 to be located in the respective cavity fairly loosely i.e. with the possibility of being at least slightly wrinkled to have a more direct feeling of the "touch" of the sample itself.

[0040] Also, application of sample 28 does not significantly affect the process of manufacturing package 1 starting from blank 10. This enables, i.e. sample 28 to be attached to blank 10 (and, consequently, to package 1) while avoiding sample damage/contamination during transportation/handling of blank 10 and package 1.

[0041] More to the point, sample 28 can be associated to package 1 at the level of blank 10, i.e. as blank 10 itself is being manufactured. In that way, no additional steps are required when package 1 is manufactured starting from blank 10 and/or is being filled with products P.

[0042] The solution of the invention is applicable to any common types of cardboard and other sheet-like materials. While the presently preferred embodiment provides for a use of blank 10 comprised of a single sheet-like member, it will be promptly appreciated that functionally equivalent results may be obtained by using blanks comprised of two or more pieces of sheet-like material, e.g. by using a first blank comprising portions 13 to 16 (and side extensions 31, 41, 51, 61 and 32, 42, 52, 62), and a second blank comprising portions 24 to 26, connection of those two blanks being ensured by conventional means such as gluing, coupling of complementary parts, etc.

[0043] Naturally, the principle of the invention remaining the same, further alternative embodiments may be developed without departing from the scope of the invention as defined by the annexed claims.

Claims

1. A package (1) including walls (2a, 2b, 3 to 6) defining a chamber for receiving products therein, **characterised in that** at least one of the said walls (4) includes an inner (24) and outer sheet (14) member forming a cavity therebetween; a product sample (28) being arranged in said cavity and said outer member (14) having provided therein an opening (27), whereby said product sample (28) is exposed to sensorial perception from the exterior of the package through said opening (27).
2. The package of claim 1, **characterised in that** said opening (27) is in the form of a window provided in said outer sheet member (14).
3. The package of claim 1 or claim 2, **characterised in that** said opening (27) has associated therewith a selectively removable protective label.
4. The package of claim 3, **characterised in that** said label is of a transparent material.
5. The product of any of claims 1 to 4, **characterised in that** said product sample (28) has incorporated therein a fragrance releasing substance.
6. The product of claim 5, **characterised in that** said substance is in the form of micro-encapsulated fragrance adapted to be released by scratching the sample (27).
7. The product of any of the preceding claims, **characterised in that** said package is comprised of at least one blank (10) of a sheet-like material, said inner (24) and outer (14) sheet members comprising two respective portions of said at least one blank (10).
8. A method of manufacturing a package (1) including walls (2a, 2b, 3 to 6) defining a chamber for receiving products therein, the method comprising the steps of providing at least one sheet-like member (10) having respective portions (13 to 16, 24 to 26, 21, 31, 41, 51; 22, 32, 42, 52) adapted to form said walls (2 to 7), and folding said at least one sheet-like member (10) to form said package (1), **characterised in that** it includes the steps of:
 - providing, in said at least one sheet-like member (10), a first (24) and a second (14) portion which, after said at least one sheet-like member (10) is folded to form said package (1), define inner (24) and outer (14) sheet members forming a cavity therebetween,
 - providing a product sample (28) in said cavity, and
 - providing said second portion (14) with an opening (27), whereby said product sample (28) is exposed to sensorial perception from the exterior of the package (1) through said opening (27).
9. The method of claim 8, **characterised in that** it includes the step of associating said sample product (28) to said at least one sheet-like member (10) before said sheet-like member (10) is folded to form said package (1).
10. The method of claim 8 or 9, **characterised in that** said product sample (28) is attached to said first portion (24) of said sheet-like member (10).
11. The method of any of claims 8 to 12 **characterised in that** it includes the step of incorporating a fragrance releasing substance in said product sample

(28).

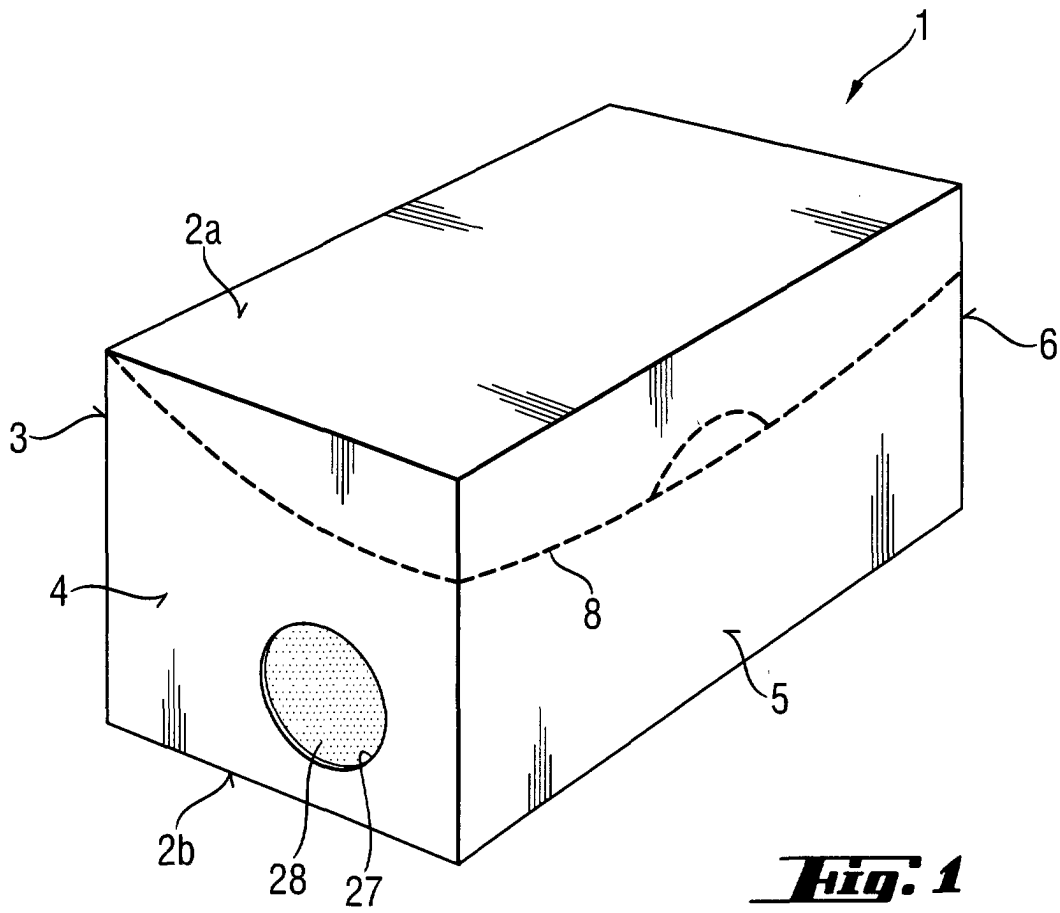
12. The method of any of the claims 8 or 13 **characterised in that** it includes the step of providing a tear line (8) adapted to be torn open the package (1). 5
13. A method of improving sensorial perception of products contained in a package (1) including walls (2a, 2b, 3 to 6) defining a chamber for receiving said products, **characterised in that** said method includes the steps of: 10
- providing in at least one of the walls of said package (1) an inner (24) and an outer (14) sheet-like member forming a cavity there between, 15
 - providing a product sample (28) representative of products to be packaged in said package (1) in said cavity, and 20
 - providing said outer sheet member (14) with an opening (27) enabling said product sample (28) to be exposed to sensorial perception from the exterior of the package (1) said opening. 25
14. The method of claim 15, **characterised in that** it includes the step of providing said opening in the form of a window (27). 30
15. The method of claim 15 or claim 16, **characterised in that** it includes the steps of providing said opening (27) with a protective, selectively removable label. 35
16. The method of any of claims 19 to 22, releasing generating substance in said product sample (28). 40

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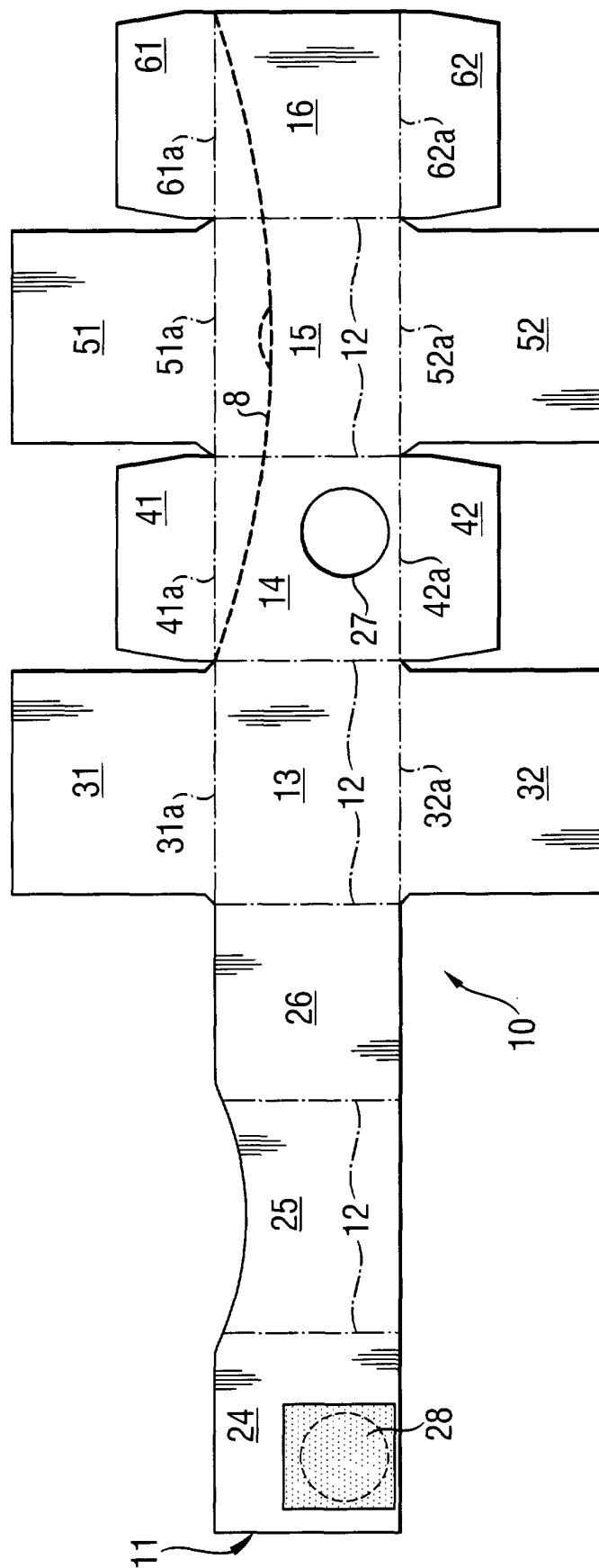


Fig. 2

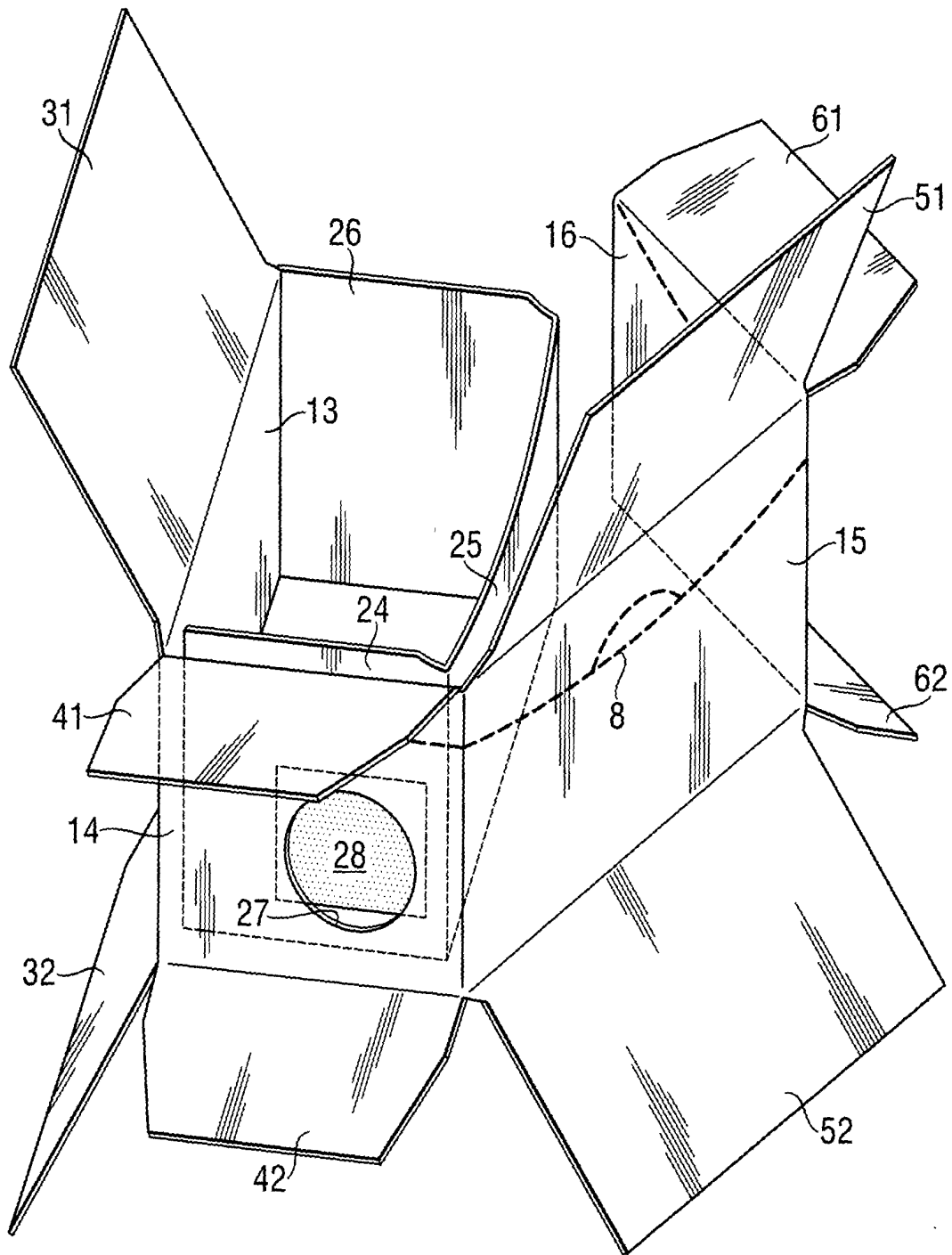


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 20 2078

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Place of search THE HAGUE		Date of completion of the search 7 November 2000	Examiner Berrington, N
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P/AC01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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