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(54) **Product packaging that can convert into a 3D figure**

(57) Product packaging, that converts into 3D figure, which consists of two opening flaps (6, 7) and additionally has an opening tear strip (1), in which the inner glue surface (3) extends internally by creasing (folding) creating another side, behind the front surface of the package (5) and carries one or more indentations (4) along the creasing line. By removing the tear strip from the outer glue surface, one or more portions of the outer glue surface remain (flaps, 2) and after the package is unfolded out, the portion is placed in the indentation (4), which lies along the inner surface of the creasing line. The free surfaces of the package have various extensions (10, 11), cut from the original mold of the package.

In this way, when the flaps (2) fit in the respective indentations (4) and the extensions are properly creased and the opening flaps of the packaging are closed (6, 7), a three-dimensional figure is shaped by the inner surface of the unfolded package (Drawing 4).

The advantage of the invention is that this packaging ensures the standard packaging wrapper of the contained product and at the same time, free of charge, the package is reused, i.e. it is possible that, after it is opened, it is not thrown away, but it offers the creative, educational and safe activity of constructing a three-dimensional figure.

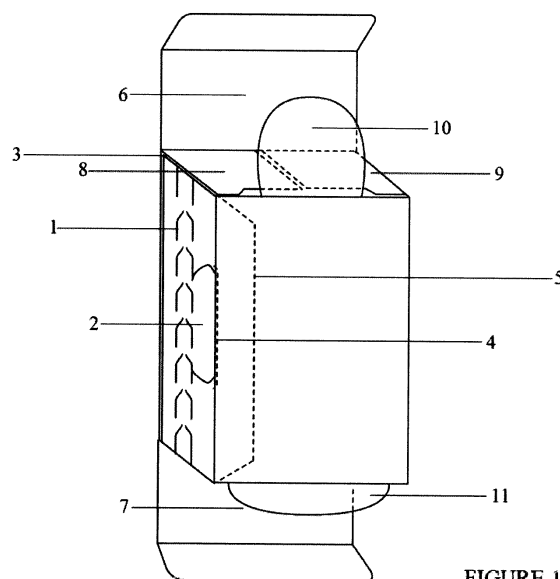


FIGURE 1

Description

[0001] This invention relates to a packaging of products, such as food, beverages, medicines, toys, personal care species, which has undergone duplex printing, in and out, which is made of paper, paperboard or flexible plastic material and in addition the two opening flaps, above and below, are cut from the mold in such a way as to have an additional closure with a side zipper-type tear strip, which when removed, leaves one or more remaining flaps. The opening flaps are extensions of the front surface of the pack and the inner surface of it extends behind the front surface, having along the creasing line (fold line) one or more indentations.

[0002] All kinds of products such as food, beverages, medicines, toys are arranged, either individually or in larger quantities of more than two pieces, in packs, that are a simple standard wrapper of this product.

[0003] While new interesting, original, useful, smart and eco friendly products of all kinds are constantly fabricated, at the same time there is a simultaneous effort, so that the packaging in which they are placed, becomes more secure, more interesting, more fun, more original and more attractive to the consumer than a simple carton, and therefore offers multiple and alternating usability.

[0004] The simple standardized wrapper, which is the packaging of a product, is used in order to make the transference and protection of the product easier and safer, and its selection is based upon hygiene factors and on protection of special climate conditions, such as extreme heat. Also, the outside surface of the packaging is used for printing and viewing important information about the product's content, its origin, the producer etc.

[0005] After the packages are opened and their contents removed for consumption, then they are useless and the vast majority of them end up in the trash, consequently harming the environment. Thus, the usefulness of these packages, which affect the final sale value of the contained product, is limited in the above mentioned features, but offers no extra usability.

[0006] These packages have only two opening flaps and so it is impossible to open the package in a way, that it can be unfolded out and "lock", since there will be no flap-tongues or indentations along the creasing line into which you install the flaps.

[0007] But as many packages have a side zipper-type tear strip, i.e. packages constructed as to open by the side and to allow the folding, after being unfolded out, they cannot "be assembled", since they have no mechanism of flap-tongues and indentations and therefore do not allow the safe construction of a three-dimensional figure from the package. To unfold out such a package and to assemble it, it requires the use of glue, scissors etc., which provides no security and makes the whole thing more complicated, long and dangerous. At the same time no safety is ensured, which is generally required in a package, so there is a potentiality of opening it malignly on the shelf before buying the product.

[0008] The advantage of this invention is that while operating as a packaging product and providing all the above utilitarian functions, if unfolded out, allows mechanically the additional use of the manual construction of a three dimensional figure easily, quickly, safely and by sharpening the curiosity and creativity of the user.

[0009] The product package according to the present invention has the feature that has been cut from the mold in such a way that, along its side, multiple types of a third zipper-type tear strip can be created, which after being pulled off, a portion of the external surface is also removed. The remaining portion of the outer surface forms one flap-tongue or more. And the internal bonding surface, located just behind, extends beyond the inner edge of the package, embracing again the next side internally. This extension of the inner surface, exactly in the point that internally touches the outer edge of the package, has one or more indentations along the creasing line (folding line).

[0010] Once the product package is opened by the zipper-type tear strip, the inner face of the package, that is printed and has either colored or colorless illustrations and drawings, is disclosed. One or more remaining portions of the outer surface (flap tongues), after removing the zipper-type tear strip, are set in the respective indentations, constructing a three-dimensional figure, which either has color illustrations or it is colorless, in order to be painted originally by the user.

[0011] Beyond the external and internal surface of the pack, the edges of the free surfaces of the package have a variety of extensions of multiple sizes and shapes, which before opening the packaging, are folded internally, and when opening the package, are disclosed and unfolded out (creased) along their creasing line (fold line), enriching the image of the figure and provide specific features of the final construction of the three dimensional figure.

[0012] Thus, apart from the above-mentioned functions of a standard package of a product, the present invention extends its usability by utilizing in an interactive way the internal surface of the packaging, which has also been printed. At the same time, it technically offers an additional potentiality of a creative, educational and constructive activity that sharpens the imagination, the creativity and the curiosity of the user and is harmless, as the three-dimensional structure is created by hand, without having to use scissors, glue, cutter, stapler or other dangerous paraphernalia. This three-dimensional figure, which is generated from the printed inner surface of the package, can easily be constructed from small children, without supervision or involvement of an adult, whose time is precious, to deal with three-dimensional structures. Finally, the operation of the invention is environmentally friendly, and after opening the package and removing the contained product for use and consumption, it is not discarded in waste, but is transformed into a new item, a three-dimensional figure, whereby the user, usually children, can play again and again. This means re-

ducing the amount of trash. Finally, a low cost is achieved to produce a product package, which ensures the classic and known today uses of a standardized product wrapping, which can also be converted into a three-dimensional figure, by the construction of which the user's creativity, inventiveness and imagination is sharpened and that can be used as packaging again and again, so characterized by multiple and alternative usability.

[0013] The invention is described below with the help of an example and with reference to the accompanying drawings.

[0014] Figure 1 shows a perspective view of the invention showing: the zipper-type tear strip of the package (1), which after being pulled off, the user succeeds in opening the package and uncovering the inner surface. The package includes a flap-tongue or more (2), i.e. the portion or portions of the external creasing surface, which remain in the package, after the pack is opened by the zipper-type tear strip.

[0015] Moreover, the package has an internal creasing surface (3), which has one or more indentations (4) along the creasing line and reaches beyond this folding edge and ends behind the front surface of the package (5). The package has two opening flaps (6, 7) and the respective lips (8, 9) in each flap. Finally, the edges of the free surfaces of the package have several extensions of various sizes and shapes (10, 11), and once the package is opened, these extensions unfold out and enrich the image of the final three dimensional figure by forming its specific characteristics.

[0016] Figure 2 shows a plan view of the layout of the packaging, having a zipper-type tear strip, but does not exclude the use of other types of opening, such as film-type.

[0017] Figure 3 shows a plan view of the layout of the package, which has only one flap-tongue (12) and respectively a single indentation (13) along the inner creasing line, but does not exclude the use of multiple flap-tongues and respective indentations.

[0018] Figure 4 shows a plan view of the layout of the pack, where the edges of the free surface of the packaging have several extensions of multiple designs and dimensions, but do not exclude the use of the extensions of other designs and dimensions.

[0019] Figure 5 shows a perspective view of the final three-dimensional figure, which is constructed from the original packaging, without excluding the figure in this case varies in dimensions and the shape, and in its final form.

[0020] More precise, in product packaging converted into three-dimensional figure, the inner creasing surface (3), which is located just behind the zipper-type tear strip (1) and the flap tongue (2), extends internally and ends (creased) behind the front surface of the package (5). Along the creasing line (folding line, 4) bears one or more indentations. In this way, if the package is opened by removing the zipper (1), one or more portions (flap tongues, 2) remain at the external surface, which, once

the package is unfolded, are placed in the respective indentations (4), which are at the edge of the inner surface and along the creasing line (folding line).

[0021] The free surfaces of the package have various extensions of multiple sizes and shapes (10, 11) which are cut on the surface of the package from the original mold.

[0022] Thus, when the remaining part or parts of the external surface (flap tongues, 2) are put in the respective indentations (4), the various extensions (10, 11) take the appropriate creases and the two opening flap - caps (6, 7) and the lips of the pack (8, 9) close, a three-dimensional figure is created from the unfolded printed inner surface of the package.

Claims

1. The product packaging, which is converted into a three-dimensional figure is composed of: a) the circumferential sides, b) two opening flaps - caps (6, 7), top and bottom, c) a side zipper-type tear strip (1), which when removed leaves at the external surface a flap-tongue (2) and d) an inner creasing surface with an indentation (4) along the creasing line (folding line) extending up behind the front side of the package (5), **characterized in that** when the package is opened by opening the side zipper-type tear strip (1) and unfolded out, the remaining flap-tongue (2) is set within the indentation (4), it "locks", and thus allows mechanically the manual construction of a three dimensional figure (figure 5).
2. The product packaging, that converts into a three-dimensional figure, according to claim 1, is **characterized in that** when removing the opening zipper-type tear strip (1) by the outer surface, one or more flap-tongues remain (2).
3. The product packaging, that converts into a three-dimensional figure, according to claim 1, is **characterized in that** the inner surface of the package (3), which extends over behind the front surface of the package (5), has one or more indentations (4) along the creasing line (folding line).
4. The product packaging, that converts into a three-dimensional figure, according to claim 1, is **characterized in that** the upper and the lower edge of its free surfaces have various extensions of different sizes and shapes (10, 11). When the package is initially closed, these extensions are folded within the package, but when the package is opened, these extensions are unfolded and disclosed (creased) along the creasing line (folding line).
5. The product packaging, that converts into a three-dimensional figure according to the preceding

claims, is **characterized in that** after the package is opened by the zipper-type tear strip (1), it is unfolded out and one or more remaining flap-tongues (2) are placed in the respective indentations (4), creating the 3D figure (Figure 5).

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6. The packaging of the product, that converts into a three-dimensional figure is **characterized by** being created with duplex print and therefore, apart from the outer surface, where graphic and verbal representations are printed, such as the brand of product, the content and related information, at the same time the inner surface of the package has been specially printed to contain colored or colorless illustrations and drawings, which constitute the final characteristics of the three-dimensional figure that is created when the package is unfolded out. 10 15
7. The packaging of the product, that converts into a three-dimensional figure is **characterized by** multiple and alternative usability, as it both allows placement within of a commercial product and at the same time, without having to be thrown in the trash, allows its educational and creative usage, since, when the package is unfolded out, a game is generated by the inner surface, originally, from scratch. 20 25
8. The packaging of the product, that converts into a three-dimensional figure is **characterized by** the security of constructing a three-dimensional figure, since the construction is done by hand, not requiring the use of certain hazardous paraphernalia, such as glue or scissors. 30
9. The packaging of the product, that converts into a three-dimensional figure is **characterized by** low cost, which ensures multiple combined usages, in one hand as a standard wrapper of a product and in the other hand as an educational and creative activity. 35 40
10. The packaging of the product, which converts into a three-dimensional figure is **characterized in that** both the side zipper-type tear strip (1) and the internal bonding surface (3) ensure the security and protection of the contained product. 45

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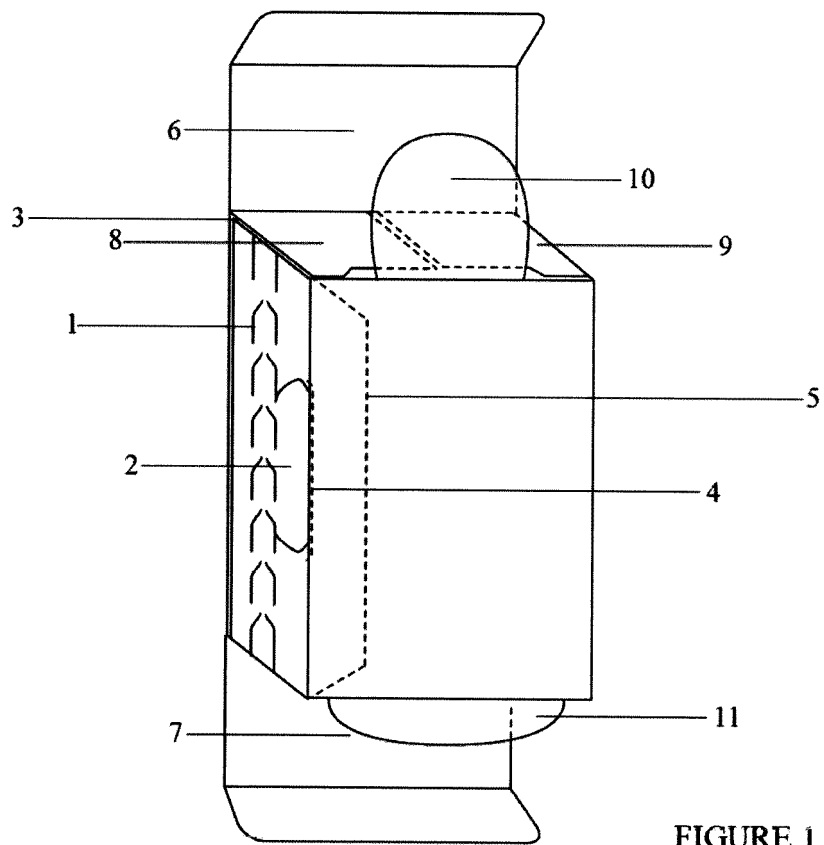


FIGURE 1

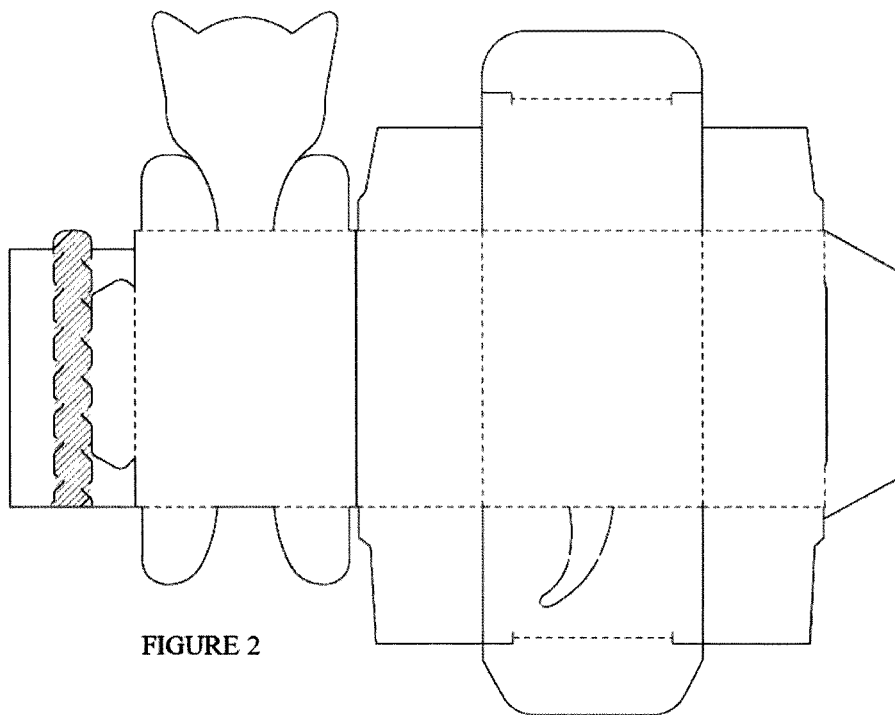


FIGURE 2

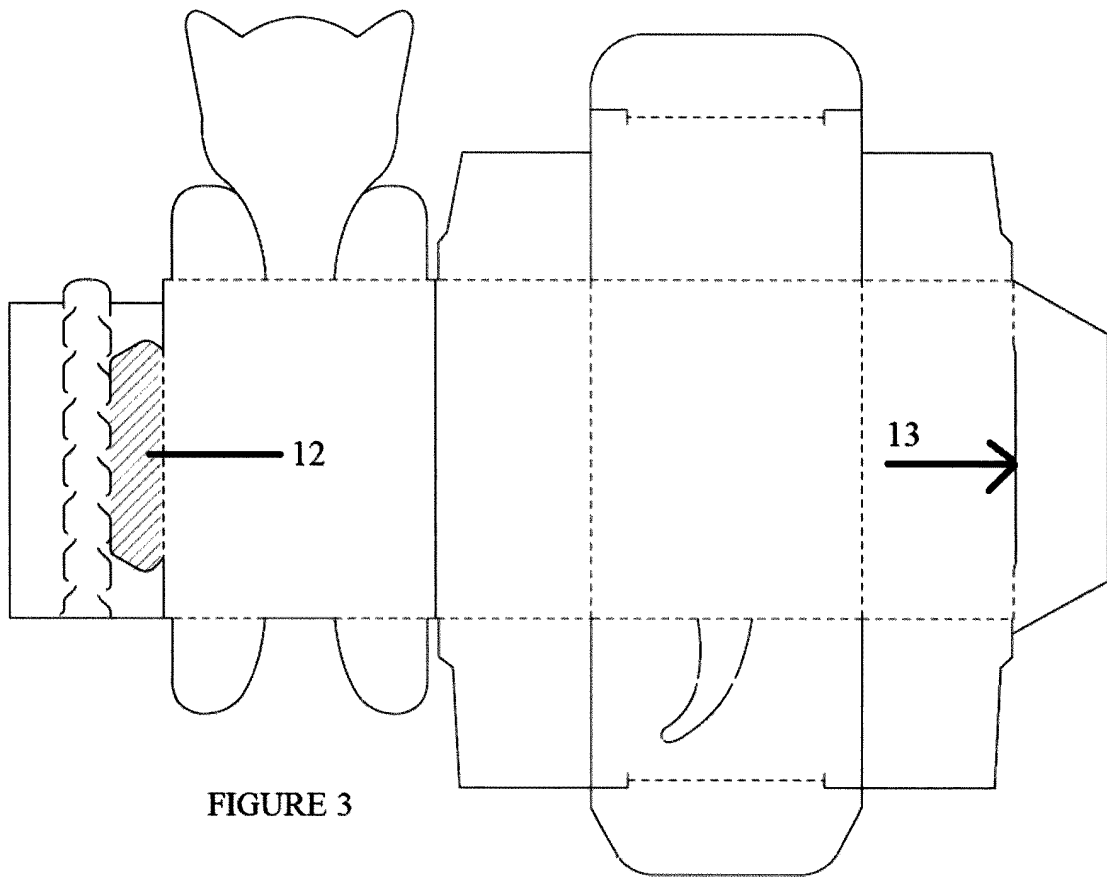


FIGURE 3

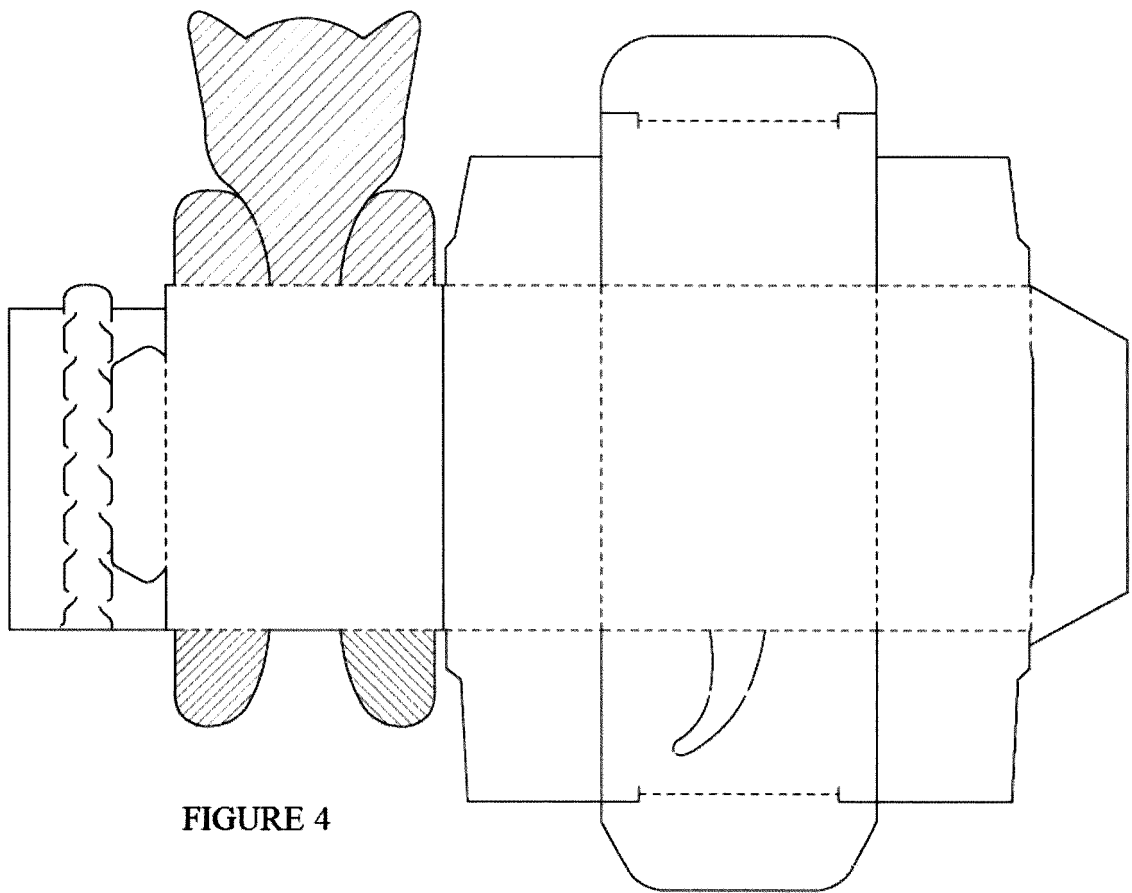


FIGURE 4

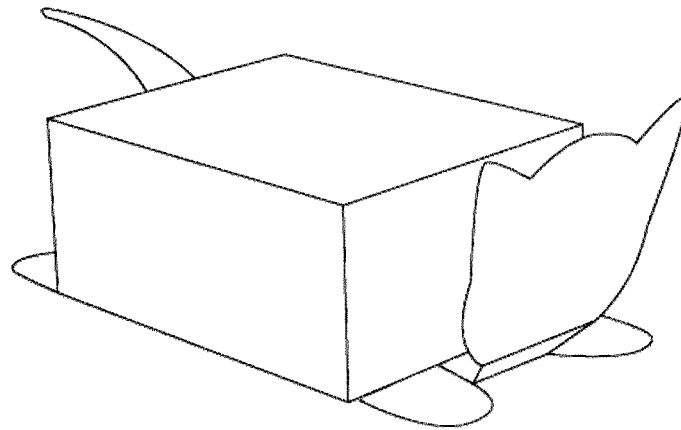


FIGURE 5



EUROPEAN SEARCH REPORT

Application Number
EP 13 38 6028

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2005/000692 A1 (BEIERSDORF AG [DE]; SCHULTZ GUENTHER [DE]; SCHABERT ANDREAS [DE]) 6 January 2005 (2005-01-06) * page 9, paragraph 5 - page 10, paragraph 1; figures 1-8 *	1-5,10	INV. B65D81/36 B65D5/54
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 January 2014	Examiner Grondin, David
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 38 6028

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16-01-2014

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