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(54) **Package, in particular for smoking articles**

(57) A package, in particular for smoking articles (C) or other tobacco products, comprises a bottom wall (3), at least one lateral wall (2), a top side (4) providing access to the interior of the package (1) and a top structure (6) adapted to close the top side (4). The top structure (6) can be swivelled about a pivot axis (P) from a closed state, in which the top structure (6) closes the top side (4), to an opened state, in which the top structure (6) permits access to the top side (4). The pivot axis (P) runs generally perpendicular to the top side (4).

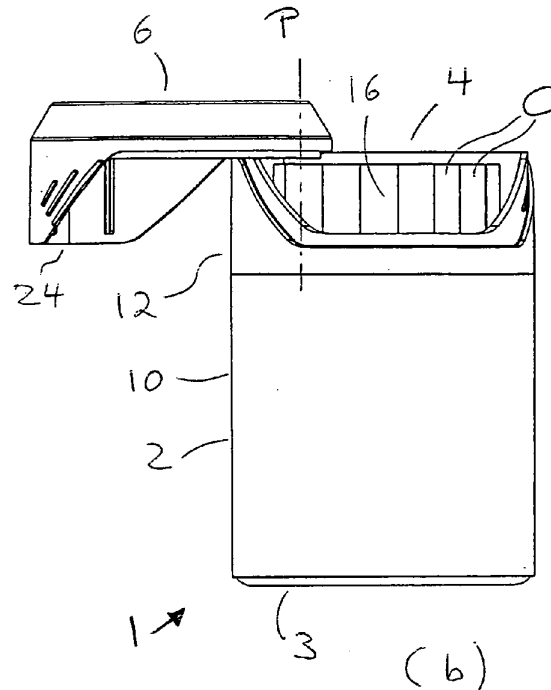


Fig. 1

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Description

[0001] The invention relates to a package, in particular for smoking articles or other tobacco products.

[0002] Packages or packs for cigarettes and other smoking articles are known in a great variety of forms and designs.

[0003] Many motor vehicles comprise a holder adapted for safely holding, e.g., a cup or mug of coffee. Such holders are provided, e.g., as a depression in a centre console between the front seats or as a foldable structure at the dashboard. Usually, the holders include a kind of circular rim. When a conventional cigarette pack is put into such kind of holder, in the best case the package is supported but not presented for use comparable to a cup of coffee, and in the worst case it even is not supported and falls down.

[0004] The object of the invention is to provide a package, in particular for smoking articles or other tobacco products, which can be used with a holder of the kind explained above in a convenient manner.

[0005] This object is achieved by a package according to claim 1. Advantageous versions of the invention are defined in the dependent claims. Claims 17 and 18 refer to a related package.

[0006] The package according to the invention can be applied for smoking articles or other tobacco products. It comprises a bottom wall, at least one lateral wall, a top side providing access to the interior of the package and a top structure adapted to close the top side. The top structure is swivelable about a pivot axis from a closed state, in which the top structure closes the top side, to an opened state, in which the top structure permits access to the top side. According to the invention, the pivot axis runs generally perpendicular to the top side.

[0007] Thus, the orientation of the pivot axis of the top structure is different from the orientation of the pivot axis or hinge line of the lid of a conventional cigarette pack, which is located along an edge of the top side. The terms "top" and "bottom" refer to the orientation of the package in ordinary use, i.e. the top side is up and the bottom side is down when a consumer takes, e.g., a cigarette out of the package, but these terms are not to be understood in a restrictive sense.

[0008] The package according to the invention can be conveniently handled when it is placed in a holder of the kind described above. The consumer can swivel the top structure away from the top side to the opened state, which permits access to the contents of the package. The top structure remains in the opened state and is not moved back by the action of gravity, unlike the lid of a conventional cigarette pack. Thus, the package can be easily used by means of one hand.

[0009] In advantageous embodiments of the invention, the pivot axis is located at or close to the lateral wall. Due to this geometry, the top side of the package can be virtually fully exposed when the top structure is swivelled into its opened state, which renders the handling of the

package particularly convenient. This also holds when the pivot axis is located in the interior of the package, at or close to the lateral wall, so that a protruding device at the outer surface of the package for accommodating the pivot axis, which could affect the overall appearance of the package, is not required.

[0010] The package can comprise a generally cylindrical shape with a longitudinal axis, wherein the pivot axis runs generally in parallel to that longitudinal axis. If the diameter of this cylinder, i.e. the diameter of the lateral wall of the package, is adapted to, e.g., the diameter of a usual plastic cup, the package will fit into the holders in motor vehicles explained above and is securely supported therein.

[0011] The lateral wall of the package, in its upper area and extending up to the top side of the package, can comprise a cutout which is closable by a lateral extension of the top structure when the top structure is swivelled from the opened state to the closed state. When the top structure is in its opened state, the cutout facilitates an easy access to the interior of the package. The edge area of the cutout can comprise a receded lip to which the lateral extension abuts when the top structure is in the closed state. In the closed state, the lip serves as a stop for the top structure and decreases the size of the joint between the lateral extension and the cutout. The design appearance of the package is generally improved by the presence of the lateral extension of the top structure.

[0012] The closing of the package can be the essentially only function of the top structure. In this case the top structure is designed as a lid of the package. The top structure can comprise an inlay of metal, e.g., a circular metal plate framed by an essentially downwardly extending plastic rim which also comprises the lateral extension mentioned before.

[0013] Alternatively, the top structure can involve additional functions. To this end, in an advantageous embodiment of the invention, the top structure comprises a tray having a base wall adapted to close the top side of the package. The tray can serve, e.g., as a support for small items like coins, which cannot be put into the vehicle console because the console space is already occupied by the package. In principle, a top structure designed as a tray can be very similar to a top structure designed as a pure lid, as explained above, but a tray generally includes an upwardly extending rim which prevents items put onto the tray from slipping down.

[0014] When the top structure is designed as a tray, there can be provided an additional lid, which is adapted to close the tray, is swivelably connected to an edge of the tray and is swivelable away from the tray to permit access to the tray. In this case, the top structure provides a closable compartment in addition to the interior of the package. Preferably, the lid is hinged in an edge area of the tray so that its hinge axis runs transverse with respect to the pivot axis of the top structure.

[0015] The tray can be designed as an ashtray, in particular when the base wall of the tray comprises metal.

In this case, the package serves as a container for, e.g., cigarettes and as a waste receptacle for the cigarette ash and buds at the same time. It is particularly advantageous when the top structure comprises an additional lid, as explained above, in order to avoid spillage of the ash when the package is moved. Such embodiments of the package can be placed in a motor vehicle, as explained above, but the user can also take the package when leaving the motor vehicle and apply it as a mobile ashtray wherever it is convenient.

[0016] In advantageous designs of the invention, the top structure is releasably lockable in the closed state. To this end, e.g., a resilient lock including a protrusion can be provided, which secures the top structure in the closed state but can be opened when the forces acting thereon exceed a given threshold value.

[0017] The bottom wall and the at least one lateral wall of the package can be defined by an outer structure, e.g., formed as an integral unit. It is also conceivable that the outer structure comprises two parts, a lower part and an upper part, wherein the lower part comprises the bottom wall and a lower portion of the at least one lateral wall and the upper part comprises an upper portion of the at least one lateral wall. In this case, the lower part and the upper part can be firmly attached to each other upon assemblage of the package. A pivot device defining the pivot axis is preferably provided at the upper part of the outer structure. This pivot device can be designed, e.g., as a fixed bearing sleeve for accommodating a pivot pin or shaft emerging from the top structure.

[0018] In advantageous embodiments of the invention, an inner structure adapted to accommodate smoking articles is inserted in the outer structure. A package design having an outer structure and an inner structure provides a solid impression. Moreover, the inner structure can be useful when a bundle of cigarettes is to be filled into the package. To this end, the cigarettes can be put into the inner structure in a first step, while the inner structure is at least one separate part. In a second step, the inner structure including the cigarettes is introduced into the outer structure, such that the inner structure assumes an inserted state in which it is, e.g., locked with the outer structure.

[0019] The inner structure can comprise at least one partitioning wall adapted to divide the inner structure into partitions. In this case, the sizes of the partitions can be adapted to the accommodation of a certain number of cigarettes. The presence of the partitions facilitates the removal of the cigarettes because they keep the cigarettes better aligned than in a package without partitions.

[0020] Moreover, it is conceivable that the inner structure comprises an inclined lateral wall such that the cross-sectional area of the inner structure is smaller towards the bottom wall of the package than towards the top side of the package. This provides a kind of funnel effect, which stabilizes the cigarettes in the package and facilitates their removal from the package.

[0021] In a related design, the cigarette pack compris-

es a bottom wall, a lateral wall, a top side providing access to the interior of the package and a top structure adapted to close the top side, wherein the top structure is swivelable from a closed state, in which the top structure closes the top side, to an opened state, in which the top structure permits generally full access to the top side. Preferably, that cigarette pack has a generally cylindrical shape such that it can be easily and safely accommodated in a holder provided in a vehicle, as explained above.

[0022] In the following, the invention is further described by means of embodiments. The drawings show in

Figure 1 a first embodiment of the package according to the invention, i.e. in part (a) a side view of the package in a closed state, in part (b) a side view of the package with a top structure designed as a lid swivelled to an opened state, and in part (c) a top view onto the package with the top structure in the opened state,

Figure 2 views of components of the package according to Figure 1, i.e. in part (a) a longitudinal section through the top structure along the longitudinal axis of the package, in part (b) a longitudinal section through an upper part of an outer structure in the plane B-B indicated in part (d), in part (c) a longitudinal section through a lower part of the outer structure along the longitudinal axis of the package, in part (d) a cross-section through the upper part of the outer structure perpendicularly to the longitudinal axis of the package, in part (e) a three-dimensional view of the inner side of the top structure, and in part (f) a three-dimensional view of the outer side of the top structure,

Figure 3 an explosion view of the package according to Figures 1 and 2 without cigarettes,

Figure 4 in part (a) a top view onto an inner structure of the package according to Figure 3 (including cigarettes) and in part (b) a top view onto another embodiment of the inner structure (including cigarettes), and

Figure 5 three-dimensional views of a second embodiment of the package according to the invention, in which the top structure includes a tray, i.e. in part (a) with the top structure in the closed state and a lid of the tray being closed, in part (b) with the top structure in the closed state and the lid of the tray being opened, and in part (c) with the top structure swivelled to the opened state and the lid of the tray being closed.

[0023] In Figures 1(a) to 1(c), a first embodiment of a

package 1 filled with cigarettes C is illustrated. The package comprises a container including a lateral wall 2 and a bottom wall 3, wherein a top side 4 opposite to the bottom wall 3 provides access to the interior of the package 1. A top structure 6 serves as a lid. As shown in Figure 1(c), the cigarettes C are supported by an inner structure 8.

[0024] The package 1 comprises a generally cylindrical shape having a longitudinal axis L. The top structure 6 can be swivelled about a pivot axis P, which runs in parallel to the longitudinal axis L and is located close to the lateral wall 2, see Figure 1(b) and Figure 1(c). When the top structure 6 is in the closed state, it covers the top side 4 of package 1, see Figure 1(a). After swivelling the top structure 6 to the opened state, free access to the interior of the package 1 is permitted, via the top side 4, see Figure 1(b) and Figure 1(c).

[0025] Figures 2(a) to 2(f) illustrate several components of the package 1 in more detail.

[0026] The lateral wall 2 and the bottom wall 3 are defined by an outer structure. In the embodiment, this outer structure consists of two parts, a lower part 10, see Figure 2(c), and an upper part 12, see Figure 2(b). The lower part 10 comprises an external recess 14, whereas the upper part 12 includes a corresponding internal recess 15. The recesses 14 and 15 provide a snap fit, which securely connects the lower part 10 and the upper part 12 after assemblage.

[0027] A cutout 16 in the area of the upper part 12 permits a better access to the interior of the package 1, see Figure 1(b) and Figure 2(b). At the edge of the cutout 16, the upper part 12 comprises a receded lip 18, see Figure 2(b).

[0028] In Figure 2(a), the top structure 6 is shown in longitudinal section along the longitudinal axis L of the package 1. The top structure 6 comprises a top wall 20. A lower rim 22 extends downwardly from the top wall 20 and passes into a lateral extension 24, see Figure 1(b), Figure 2(e) and Figure 2(f). The lateral extension 24 is adapted to close the cutout 16 when the top structure 6 is in the closed state. In the embodiment, the wall thickness of the lower rim 22 and the lateral extension 24 is about as large as the distance the receded lip 18 is offset with respect to the outer surface of the upper part 12 so that, in the closed state of the package 1, the surface in the area of the lateral extension 24 and the upper part 12 is generally smooth.

[0029] Figure 2(a) and Figure 2(e) display a pivot shaft 26 which, in the assembled state of the package 1, is inserted in a pivot sleeve 28, see Figure 2(b) and Figure 2(d). Figure 2(d) is a cross-sectional view through the upper part 12 of the outer structure in a plane perpendicular to the longitudinal axis L. The pivot sleeve 28 is a fixed and integral part of the upper part 12. At its lower edge, the pivot shaft 26 is provided with a small outwardly extending lug which, after assemblage, prevents the top structure 6 from being pulled out of the pivot sleeve 28.

[0030] The cigarettes C are supported by an inner

structure 8, see Figure 1(c), as already mentioned before. Figure 3 illustrates the package 1 by means of an explosion view, which shows an embodiment of the inner structure 8 in more detail. According to Figure 3, the inner structure is slightly different from that according to Figure 1(c), but in both cases the reference numeral 8 is used.

[0031] In the embodiment, the inner structure 8 is made as an integral injection-moulded part of PP (polypropylene). It comprises a body 30 including a lateral wall 31 having an essentially hexagonal cross-sectional shape and a bottom wall as well as an upper flange wall 32 and a partitioning wall 34. The upper flange wall 32 adapts the essentially hexagonal cross-sectional shape of the lateral wall 31 to the essentially circular cross-sectional shape of the lateral wall 2 of the lower part 10 of the outer structure. The partitioning wall 34 divides the inner structure 8 into two partitions 36, 37. The partitioning wall 34 is optional and assists in keeping the cigarettes C together and presenting them in an attractive manner when the package is opened.

[0032] The inner structure 8 is held in the outer structure 10, 12 via a guide rib 38 and another guide rib diametrically opposite to guide rib 38, which fit into corresponding guide rails provided at the inner face of the lower part 10. In Figure 3, one pair 39 of these guide rails is visible.

[0033] It is also conceivable that the inner structure has a somewhat frusto-conical shape, with its diameter close to the bottom wall of the package being smaller than close to the top side of the package. This shape provides for some funnel effect which also assists in aligning the cigarettes in the package.

[0034] In the embodiment, when assembling the package 1, first the partitions 36, 37 of the inner structure 8 are filled with cigarettes. Afterwards, the inner structure 8 is inserted into the lower part 10 of the outer structure, the guide ribs 38 being fitted into the corresponding guide rails 39. Finally, the upper part 12 of the outer structure with the top structure 6 already connected is placed on top of the lower part 10 and locked thereto by means of the recesses 14 and 15.

[0035] Figure 4(a) presents a top view onto the inner structure 8 according to Figure 3 filled with a total of 30 cigarettes C. In the embodiment according to Figure 4(b), the inner structure has a somewhat different shape and is designated by 8'. Here, it keeps 29 cigarettes C only. From Figure 4 it is evident that the inner structure 8 or 8' can be adapted to a large range of different numbers of cigarettes C.

[0036] In the embodiment, the parts of the package 1 are produced by injection-moulding, e.g. from PP (polypropylene) or ABS (acrylonitrile butadiene styrene copolymer). Other materials are conceivable as well. In a variant, the top wall 20 of the top structure 6 consists of a metal plate fit into a frame formed by the rest of the top structure 6 and preferably produced by injection-moulding. Such metal plate can provide an appealing effect.

[0037] Another embodiment of a package for smoking

articles is illustrated in Figure 5. As before, the package, here designated by reference numeral 40, comprises a lateral wall 42 and a bottom wall 43. Opposite to the bottom wall 43, a top side 44 provides access to the interior of the package 40. The top side 44 can be closed by a top structure 46, which can be swivelled from a closed state, see Figure 5(a), to an opened state, see Figure 5(c). So far, the package 40 is very similar to the package 1. The top structure 46, however, has two functions: It serves as a lid, and it includes a tray 50, see in particular Figure 5(b). The tray 50 can be designed as an ashtray. **[0038]** The tray 50 incorporated in the top structure 46 includes a base wall 52 made of a metal plate, an upwardly extending rim 54 and a lid 56 which can be opened and closed by rotational movement about a hinge 58 located at the upper edge of rim 54. When the lid 56 is closed, it can be secured by means of a snap lock including a small grip 60.

[0039] In the package 40, the lower parts of the top structure 46 are very similar to the corresponding parts of the top structure 6 of package 1.

[0040] Similar top structure designs are conceivable as well, e.g. without the lid 56. In the latter case, the top structure 46 serves as a lid for the package and, because of its rim, as a tray, generally for accommodating things different from ash.

Claims

1. Package, in particular for smoking articles (C) or other tobacco products, comprising a bottom wall (3; 43), at least one lateral wall (2; 42), a top side (4; 44) providing access to the interior of the package (1; 40) and a top structure (6; 46) adapted to close the top side (4; 44), wherein the top structure (6; 46) is swivelable about a pivot axis (P) from a closed state, in which the top structure (6; 46) closes the top side (4; 44), to an opened state, in which the top structure (6; 46) permits access to the top side (4; 44), **characterised in that** the pivot axis (P) runs generally perpendicular to the top side (4; 44).
2. Package according to claim 1, **characterised in that** the pivot axis (P) is located at or close to the lateral wall (2; 42), preferably in the interior of the package (1; 40).
3. Package according to claim 1 or 2, **characterised in that** the package (1; 40) comprises a generally cylindrical shape having a longitudinal axis (L) and **in that** the pivot axis (P) runs generally in parallel to that longitudinal axis (L).
4. Package according to claim 3, **characterised in that** the lateral wall (2), in its upper area and extending up to the top side (4) of the package (1), comprises a cutout (16) which is closable by a lateral extension (24) of the top structure (6) when the top structure (6) is swivelled from the opened state to the closed state.
5. Package according to claim 4, **characterised in that** the edge area of the cutout (16) comprises a recessed lip (18) to which the lateral extension (24) abuts when the top structure (6) is in the closed state.
6. Package according to anyone of claims 1 to 5, **characterised in that** the top structure (6) is designed as a lid of the package (1), wherein optionally the top structure comprises an inlay of metal.
7. Package according to anyone of claims 1 to 5, **characterised in that** the top structure (46) comprises a tray, preferably an ashtray (50), having a base wall (52) adapted to close the top side (44) of the package (40).
8. Package according to claim 7, **characterised by** a lid (56), which is adapted to close the tray (50), is swivelably connected to an edge of the tray (50) and is swivelably away from the tray (50) to permit access to the tray (50).
9. Package according to claim 7 or 8, **characterised in that** the base wall (52) of the tray (50) comprises metal.
10. Package according to anyone of claims 1 to 9, **characterised in that** the top structure (6; 46) is releasably lockable in the closed state.
11. Package according to anyone of claims 1 to 10, **characterised in that** the bottom wall (3) and the at least one lateral wall (2) of the package (1) are defined by an outer structure.
12. Package according to claim 11, **characterised in that** the outer structure (2, 3) comprises two parts, a lower part (10) and an upper part (12), wherein the lower part (10) comprises the bottom wall (3) and a lower portion of the at least one lateral wall (2) and the upper part comprises an upper portion of the at least one lateral wall (2).
13. Package according to claim 12, **characterised in that** a pivot device (28) defining the pivot axis (P) is provided at the upper part (12) of the outer structure (10, 12).
14. Package according to anyone of claims 11 to 13, **characterised by** an inner structure (8; 8') inserted in the outer structure (10, 12) and adapted to accommodate the smoking articles (C).
15. Package according to claim 14, **characterised in**

that the inner structure (8; 8') comprises at least one partitioning wall (34) adapted to divide the inner structure (8) into partitions (36, 37).

16. Package according to claim 14 or 15, **characterised in that** the inner structure comprises an inclined lateral wall such that the cross-sectional area of the inner structure is smaller towards the bottom wall of the package than towards the top side of the package. 5
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17. Cigarette pack comprising a bottom wall (3; 43), a lateral wall (2; 42), a top side (4; 44) providing access to the interior of the package (1; 40) and a top structure (6; 46) adapted to close the top side (4; 44), **characterised in that** the top structure (6; 46) is swivelable from a closed state, in which the top structure (6; 46) closes the top side (4; 44), to an opened state, in which the top structure (6; 46) permits generally full access to the top side (4; 44). 15
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18. Cigarette pack according to claim 17, **characterised in that** the cigarette pack (1; 40) has a generally cylindrical shape. 25

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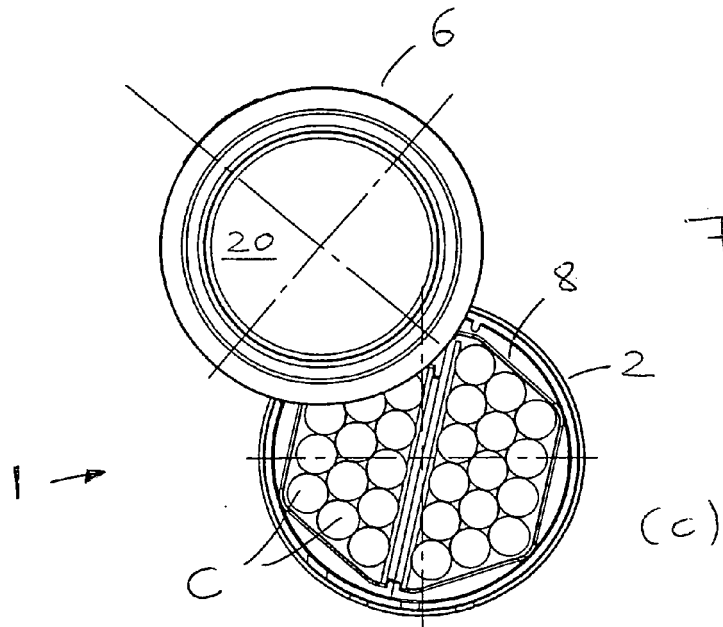
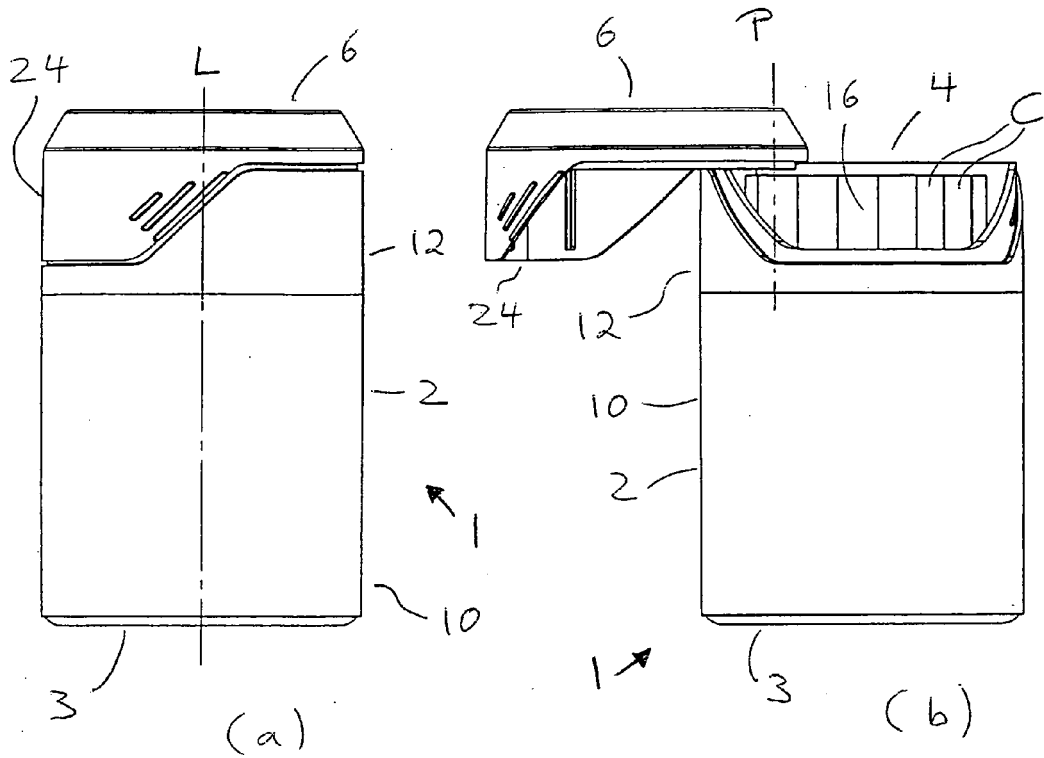


Fig. 1

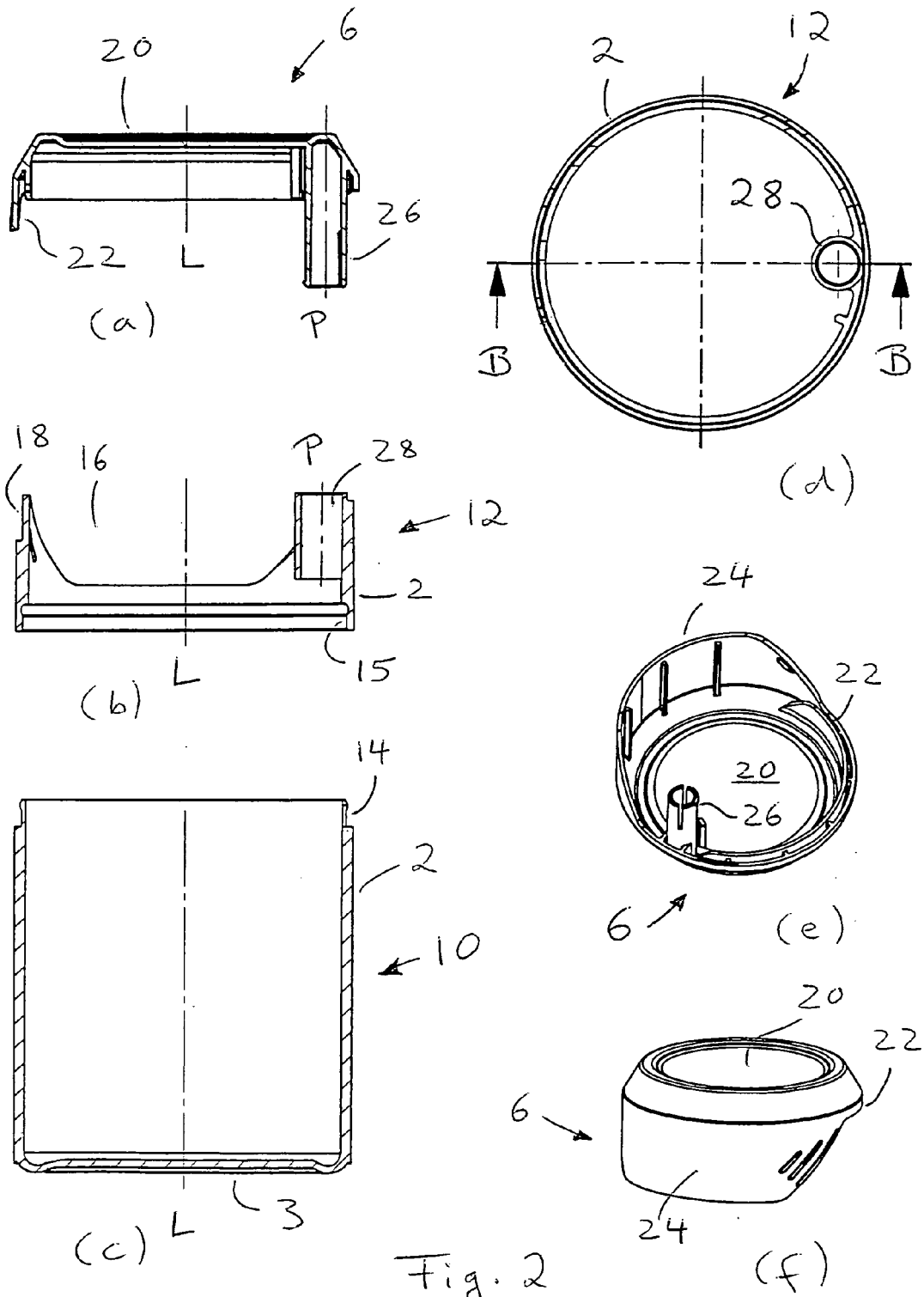
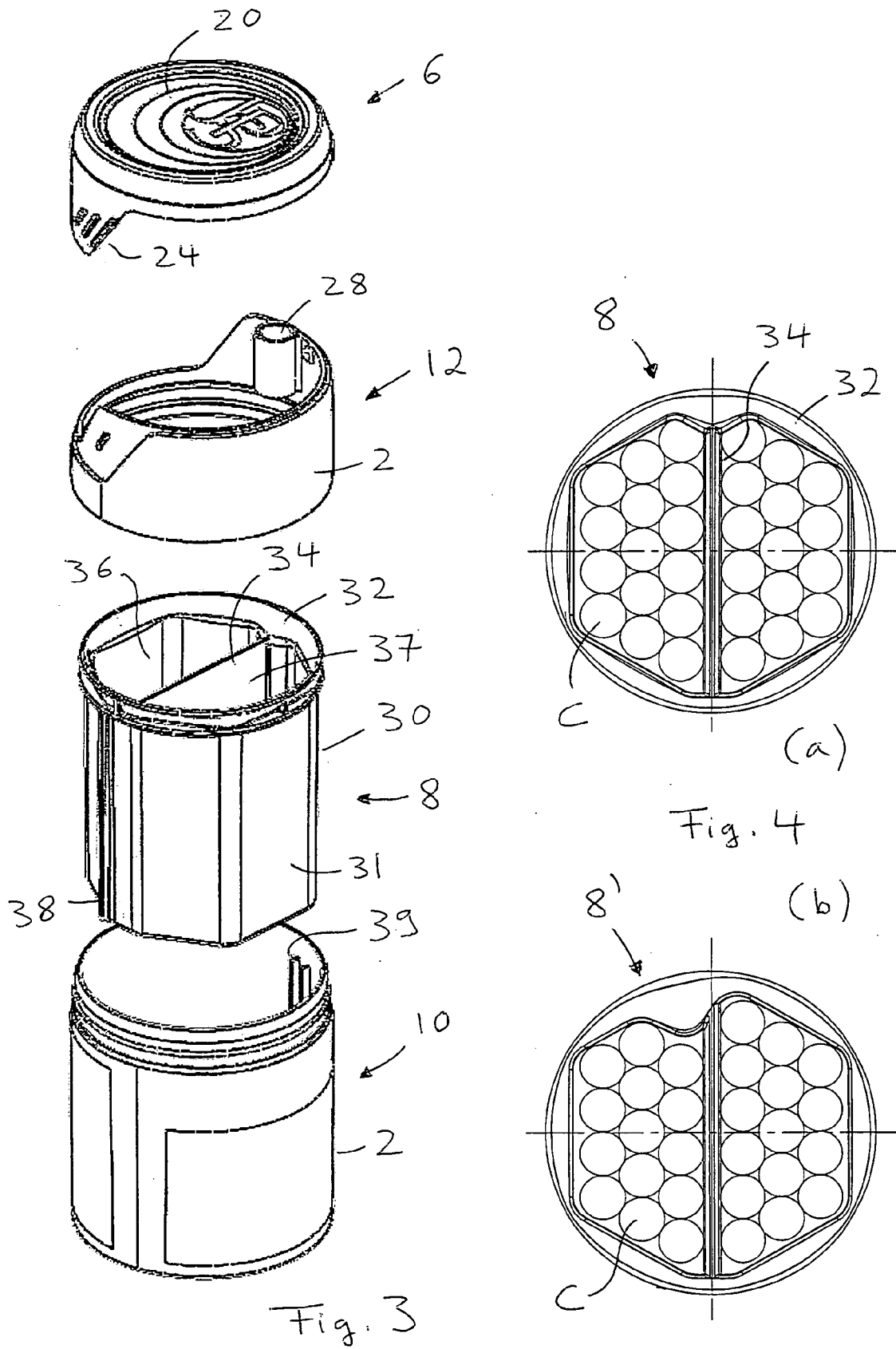


Fig. 2



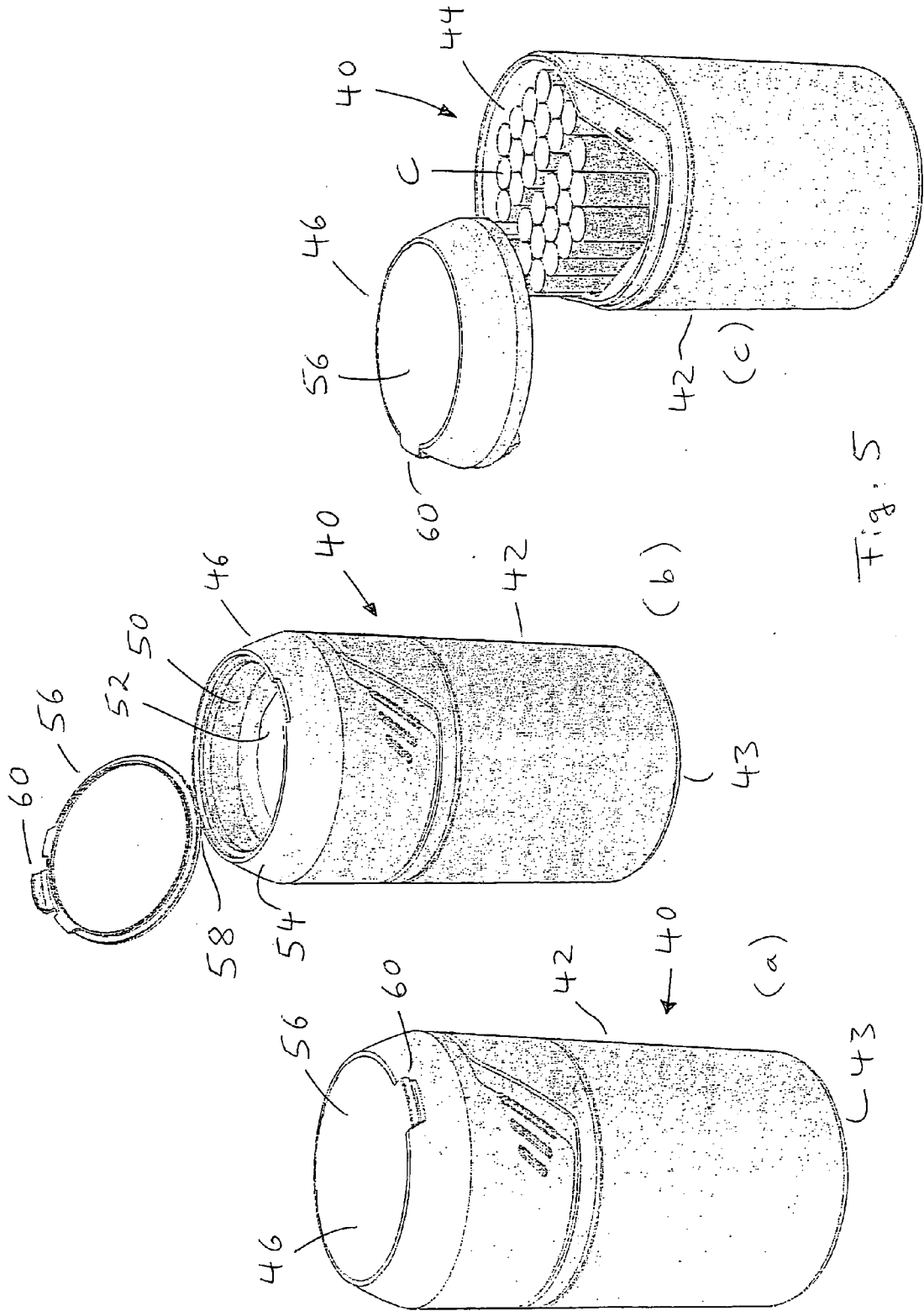


Fig. 5



EUROPEAN SEARCH REPORT

Application Number
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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 19 November 2010	Examiner Galli, Monia
CATEGORY OF CITED DOCUMENTS		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	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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