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(71) Applicant: **Labianco, Paolo**
50136 Firenze (IT)

(72) Inventor: **Labianco, Paolo**
50136 Firenze (IT)

(74) Representative: **Bardini, Marco Luigi et al**
c/o Società Italiana Brevetti S.p.A.
Corso dei Tintori, 25
50122 Firenze (IT)

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(54) **Ashtray with universal attachment**

(57) Container device, in particular an ashtray, comprising a box-shaped body (1) defining a compartment (11) with a bottom (14) and an opening mouth (11a), and means (3) for attaching the box-shaped body against an external support, characterised in that the attachment means comprise an attachment plate (3) adapted to be

fixed against said external support, on the box-shaped body (1) a channel (17) being provided for between the bottom (14) and the mouth (11a), to be engaged in a sliding manner with the plate (3) and comprising means (18) for stopping the plate, such means being arranged in proximity to the mouth (11a).

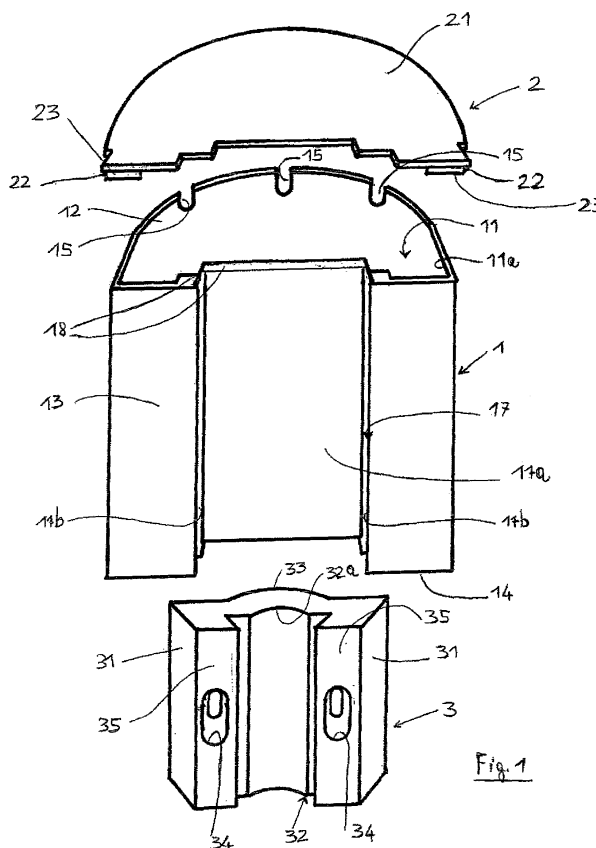


Fig. 1

Description

[0001] The present invention generally regards the ashtray industry, and in particular it regards a new ashtray model which, due to an innovative configuration, can be positioned where required in an extremely simple and versatile manner, in particular but not exclusively in outdoor spaces adjacent to public businesses such as bars, restaurants, cinemas and meeting places in general.

[0002] As known, an ever-growing number of national and regional laws forbid smoking in public and work areas. This has led to the expansion of the habit for smokers temporarily getting out from the area in question, very often on the road in front of the entrance of the area. This phenomenon implies a considerable deterioration of urban public spaces, being easily noticeable the amount of cigarette butts thrown on the ground in front of all types of public areas. More generally speaking, the problem regarding cigarette butts left to pollute the environment is extremely concerning and widely unsolved.

[0003] The object of the present invention is to provide a solution to such problem, by means of an ashtray which, due to its characteristics of occupying minimum space and being easy to set up, can be positioned anywhere required in an easy and versatile manner, allowing to curb the abovementioned environmental damage.

[0004] In the scope of such general object, a particular object of the present invention is that of providing an ashtray of the abovementioned type, whose appealing shape can make it widely suitable for urban design for the exterior of public places and buildings, such as bars, restaurants, cinemas, theatres, discos, public offices and the like.

[0005] These objects are attained by means of a container device, in particular an ashtray, according to the present invention, the characteristics of which are defined by the first of the appended claims.

[0006] The characteristics and advantages of the ashtray with a universal attachment according to the present invention shall be clearer from the following description of one of its embodiments, provided for exemplifying and nonlimiting purposes with reference to the attached drawings wherein:

- figure 1 represents an axonometric view of the ashtray, in an exploded configuration, seen from the attachment side;
- figures 2, 3 and 4 respectively show, a front, side and top view of a body of the ashtray of figure 1;
- figures 5, 6 and 7 respectively show, a front, side and top view of a cover of the body of the previous figures; and
- figures 8 and 9 respectively show, a front and top view of a plate for attaching the ashtray according to the invention.

[0007] With reference to the above figures, an ashtray according to the present invention is essentially made up

of three distinct elements, mutually assemblable as outlined hereinafter, made for example and preferably by means of moulding using melamine material or any other fireproof material.

[0008] In particular, one can distinguish a box-shaped body 1, which defines the actual ashtray compartment 11, a tilting cover 2 which intercepts - in a moveable manner - the mouth of the upper opening 11a of the compartment 11, and lastly an attachment plate 3 for holding the body 1 against an external support.

[0009] The box-shaped body 1, shown in particular in figures 2 to 4, advantageously has, for aesthetic purposes, a substantially semi-cylindrical shape, defined by a semi-cylindrical curved wall 12, and by a substantially flat diametral wall 13, both raising from a flat bottom 14. However, the box-shaped body could be of different shapes (parallelepiped, spheroidal, etc.). The internal compartment 11 defined by the body 1 is intended to hold the cigarette ash and butts. The opening mouth 11a of the compartment 11 is circumscribed by an upper edge of the semi-cylindrical wall 12 of the body 1, preferably provided on which there are a plurality of indentations 15 for holding the cigarette.

[0010] Still on the semi-cylindrical wall 12, and in proximity to the upper margin, but in this case adjacently to the diametral wall 13 where such margin is subjected to a slight relief, two holes 16 for hinging the cover 2 are provided mutually aligned on opposite sides. As a matter of fact, the cover, shown in particular in figures 5 to 7, has a semi-circular profile similar to the one of the mouth 11a, defining in proximity to the diametral side two projecting pins 22 inserted into the holes 16 in a rotating manner.

[0011] The cover 2 thus comprises a plate-shaped element 21 whose profile corresponds to the one of the transverse section of the body 1, with a slight oversizing in such a manner to create a small projection capable of assisting the manual grasping for opening by lifting. The projecting pins 22 extend from the cylinders 23 integral with the upper face 21a of the cover, that is the one intended to be internal with respect to the closed cover, and they can be an integral part of the moulding and melting material or made as small metal segments to be inserted into special holes formed in the cylinders 23.

[0012] The substantially complete interception of the ashtray opening compartment 11, by the cover 2, is advantageously ensured, not only by the profile of the element 21 perfectly fitting with the one of the body 1, but also due to projections 24 extending from the lower face 21a in such a manner to correspond fittingly with the indentations 15, blocking them in a manner such not to release the contents of the ashtray (odours, ashes or any other product). The projections 24 can be snap-engaged inside the indentations, or simply overlapped internally or externally thereto.

[0013] A further projection 25 can be provided for centrally on the internal face 2a of the cover 2, provided with grooves or any other type of roughness in such a manner

to serve the purpose rubbing the lit end of the cigarette to facilitate its quick extinguishing. Such functionality shall be obviously exploitable with the cover 2 in the opening position, whose inclination shall also facilitate the subsequent dropping of the cigarette into the compartment 11 of the body 1. Regarding this, it should be pointed out how the distance of the holes 16 from the diametral wall 13, on which the attachment of the ashtray occurs from the external, is such to allow the cover 2 to remain permanently inclined at the opening position.

[0014] Returning to the body 1, on the external surface of the diametral wall 13, provided on the axial direction there is a channel 17, preferably, like in the example, with a substantially dovetail transverse section. The channel 17 covers the entire development of the wall from the bottom 14 to the opening mouth 11a of the compartment 11 and has a deeper central section 17a, whose purpose shall be explained hereafter. The dovetail-shaped ends, indicated at 17b, and the central section 17a are also intercepted, at the end adjacent to the cover 2, by a stop diaphragm 18 (figure 4), in such a manner to provide a partial closure of the channel 17.

[0015] Lastly, a threaded hole 19a is formed in the bottom 14, closely adjacent to the channel 17 and on a specific bulge 19 provided inside the compartment 11. The hole 19a is adapted to accommodate a wide headed screw (not shown) adapted to interfere with the channel 17 in order to lock, also in this case as outlined hereafter, the attachment plate 3 once inserted into the channel.

[0016] The attachment plate 3, shown in detail in figures 8 and 9, is shaped in such a manner to be inserted in a sliding manner into the channel 17, showing in particular two inclined sides 31 which couple with the dovetail-shaped ends 17b of the channel 17. In the side which, with the plate inserted into the channel, faces outwards, there is formed an axial groove 32 which advantageously copies, with a smaller section, the dovetail shape of the profile.

[0017] The bottom of the groove 32 is provided with a central cavity 32a, with a curved transverse section, whereas, on the internal side of the plate, a relief 33 can be formed, as in the example, for arrangement in the deeper central section 17a of the channel 17. Two or more through seats 34 with the respective enlarged segments for assisting the accommodation of screws or the like, are formed in the plate for instance, as shown, at respective sides of the groove 32, and that is between the latter and the respective inclined sides 31. Such seats 34 open in particular, from the external side, on respective flat facets 35 which, with the plate mounted, are adapted to be positioned slightly ahead with respect to the diametral wall 13 of the body 1. A third through seats may be formed in correspondence with the groove 32, and possibly a canal (not shown) may join the various seats in order to assist the accommodation of a fastening strip or wire (as made clear further on).

[0018] Due to the configuration of the attachment plate 3, it is possible to ensure a practically universal position-

ing of the ashtray, and that is with maximum versatility in various mounting conditions, both on flat surfaces (vertical, or inclined) or fixed on poles, rods, or any other similar vertically extended independent element, substantially using all the traditional fixing systems (screws, nails, glues, adhesives, magnet, strips etc.).

[0019] In particular, the seats 34, which can be, as in the example, oval shaped, serve for the passage of screws (with or without an anchor) or nails for fixing the plate onto a masonry wall, or onto a metal support, made of wood etc. Such holes can alternatively allow the passage of fastening strips for fixing the plate against support elements such as rods, poles and the like, arranged at the enlargement defined by the cavity 32a at the centre of the groove 32. A magnet can be accommodated in the same groove, said magnet being suitably shaped in such a manner to provide for a stable engagement, or fastened by means of other systems (for example by means of glue). The flat facets 35 provide for a contact surface for placing bonding agents, pieces of bi-adhesive tapes, still for fixing against a masonry wall, or other supports with regular surface portions made of metal, wood, plastic material etc... Where possible, the various fixing systems mentioned above, can be used in combination with each other.

[0020] Once the plate 3 is secured in position on the relative installation support, the body 1, with the cover 2 mounted previously, shall be engaged therewith by coupling the channel 17 therewith and making it slide from the top to the bottom until the plate stops against the stop diaphragm 18, which prevents the plate itself from projecting from the upper end of the channel 17 allowing the body 1 to be held anchored against the plate.

[0021] The insertion of a large head screw, with or without an additional gasket, or an eye screw or a ring screw into the hole 19a on the bottom 14, shall be used to prevent easy withdrawal or removal of the body 1 by unauthorised persons, but also to prevent easy detachment of the body 1 in case of any kind of accident. The removal of the screw, on the other hand, shall allow to free the body to empty or clean it.

[0022] All the accessory elements mentioned above (screws with or without a plug, bi-adhesive, magnet, various glues or the fastening strip or any other element) can advantageously be supplied with the ashtray, which could be sold with the cover ready-assembled on the body, or in three separate pieces to be assembled entirely.

[0023] The overall structure of the ashtray according to the invention is easy to make in that it consists of elements which can be reproduced easily by melting and moulding plastic material or also metals suitable for such purposes. As a matter of fact, the single elements do not have components such to make the processing complicated or expensive. The easy connection between the three elements which make up the ashtray allows its easy assembly even by unskilled operators. The same applies to its setting-up and functionality.

[0024] The ashtray according to the invention, due to its technical features, can thus be fixed projected on any type of support, but - with the body 1 having a flat bottom - it can be simply laid on a flat surface without requiring to be fixed. The almost airtight closure of the body 1 by means of the cover 2 allows both not to release odours, ashes or any other products contained therein into the external environment, and not to accumulate the external atmospheric elements that could jeopardise its functionality.

[0025] Due to its characteristics of occupying minimum space and easy set-up, the ashtray according to the invention can thus allow curbing environmental damage, its appealing shape making it widely suitable for urban design for exterior of public places and buildings, banks, etc, but also as a decoration element and odour inhibitor for interior environments. Again due to the same characteristics, the ashtray shall be easily adaptable also for arrangement inside automobile cabins (in particular on the left side of the driver, offering better accessibility with respect to the traditional ashtrays arranged on the right side), or on the beaches where it can be fixed onto the stems of the beach umbrellas, creating the formation of those unpleasant butt turfs so negative from an aesthetic and ecosystem point of view.

[0026] Still, the ashtray can be intended for private use, using it for example in campsites, or fixing it in the kitchen or in other environments where the normal ashtrays open and arranged on a horizontal surface can be dangerous, anaesthetic or poorly hygienic due to the odours release therefrom.

[0027] Even more generally speaking, the invention can provide for a container with an almost airtight closure, easy to install and which is practically universal, whose purpose is not restricted to the one of the aforescribed ashtray. As a matter of fact, the ashtray (possibly in an embodiment free of the indentations 15), can serve as a box for holding items (such as nails, screws, metal bits and pieces in general) or substances (for example food products), which can be hanged where required under the widest circumstance of use (kitchen, campers, boats etc).

[0028] As mentioned, there are no restrictions regarding the material used to make the ashtray. Same case applies to the colours, unless colours linked to the pigmentation that the material by which the article is made can receive, or the dimensions. The latter can range from a capacity of a few cm³ to several dc³, obviously varying the scale of dimensions of the various elements.

[0029] The invention is not restricted to the embodiment described above and illustrated, but it comprises any variant or modification within the scope of the appended claims.

Claims

1. A container device, in particular an ashtray, compris-

ing a box-shaped body (1) defining a compartment (11) with a bottom (14) and an opening mouth (11a), and attachment means (3) for attaching said box-shaped body to an external support, **characterised in that** said attachment means comprise an attachment plate (3) to be fixed to said external support, a channel (17) being formed in said box-shaped body (1) between said bottom (14) and said mouth (11a), for sliding engagement with said plate (3) and comprising stop means (18) for the plate, such stop means being arranged in proximity to said mouth (11a).

2. The device according to claim 1, wherein said plate has, on the attachment side, a groove (32) evolving in a parallel manner with respect to the direction of insertion of said body (1) into said channel (17), for accommodating magnetic means or similar attachment elements, said groove being defined between two flat facets (35) on which through seats (34) are formed for the engagement of screws and similar attachment elements.

3. The device according to claim 2, wherein the bottom of said groove (32) is provided with a central cavity (32a), with a curved transverse section, defining an enlargement adapted to couple with support elements such as rods, poles and the like.

4. The device according to claim 2 or 3, wherein said groove (32) has a dovetail-shaped transverse section and may be provided with through seats (34) for the engagement of screws and similar attachment elements.

5. The device according to any of the previous claims, wherein said channel (17) of said body has a dovetail-shaped transverse section, said plate (3) having oblique sides (31) shaped correspondingly.

6. The device according to claim 5, wherein said channel (17) of said body has a deeper central section (17a) to accommodate a projection (33) of said plate, said stop means (18) comprising a stop diaphragm (18) which at least partially intercepts said central section (17a) of said channel (17) at the end adjacent to said mouth (11a).

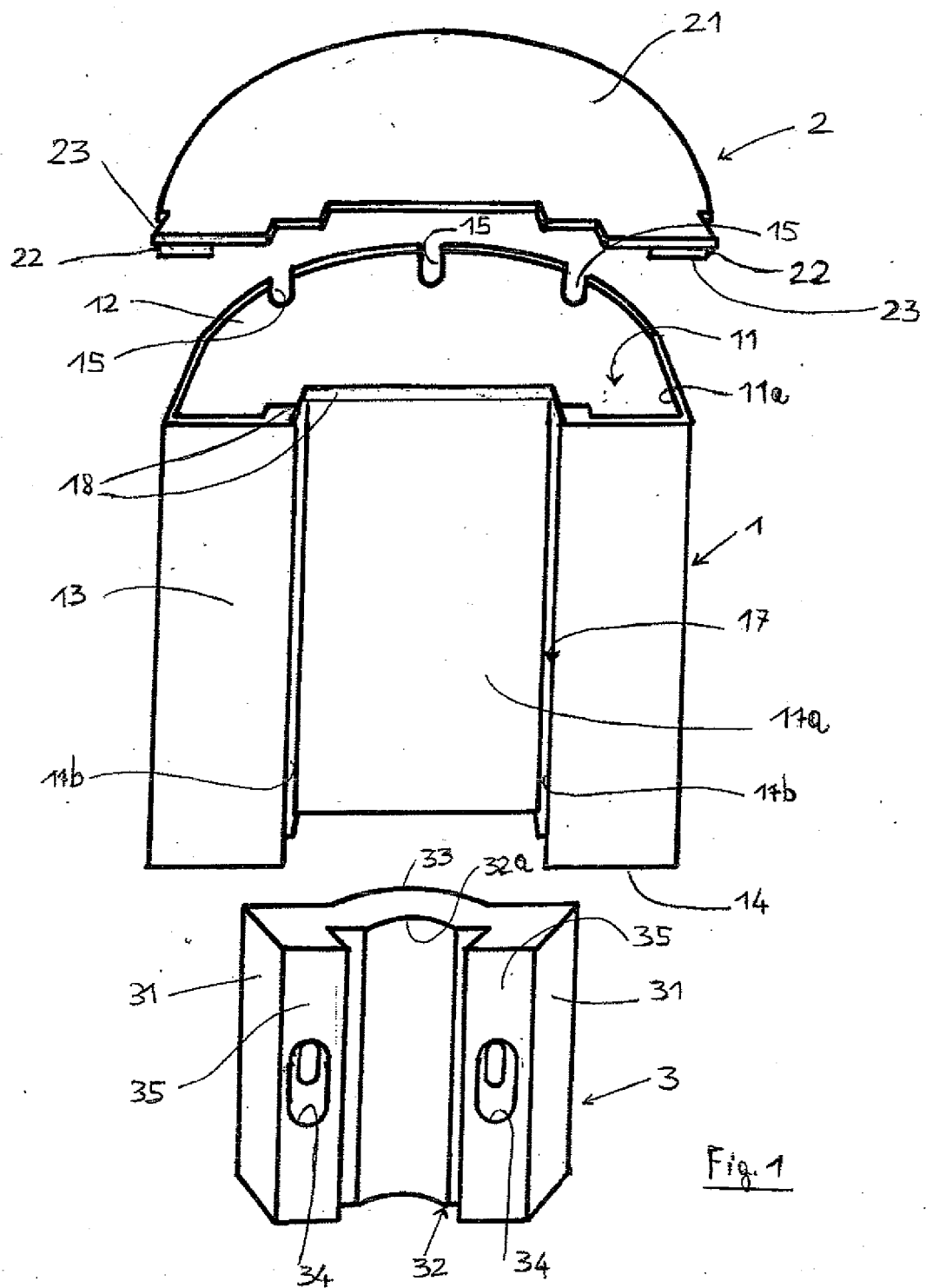
7. The device according to any of the previous claims, wherein said body (1) comprises at least one substantially flat wall (13) on which said channel (17) is formed.

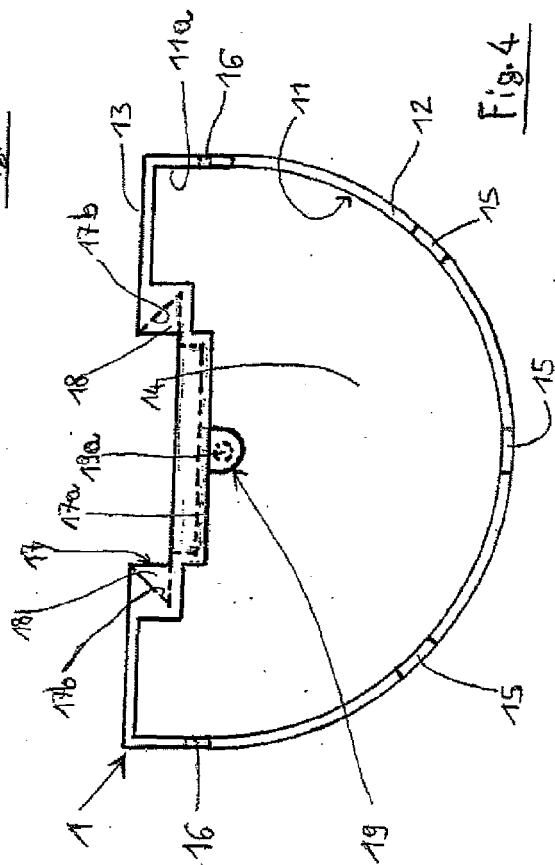
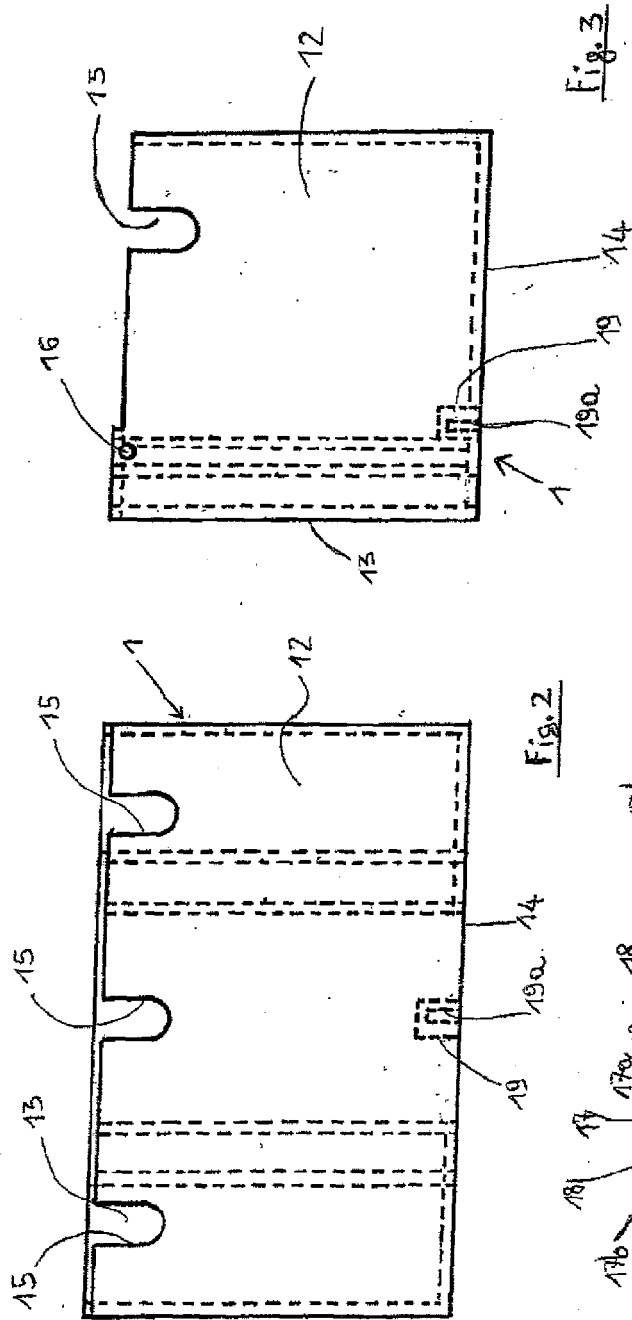
8. The device according to claim 7, wherein said body has a substantially semi-cylindrical shape, comprising, alongside said flat wall (13) extending diametrically, a semi-cylindrical curved wall (12) and a flat bottom (14) from which said diametral wall (13) and

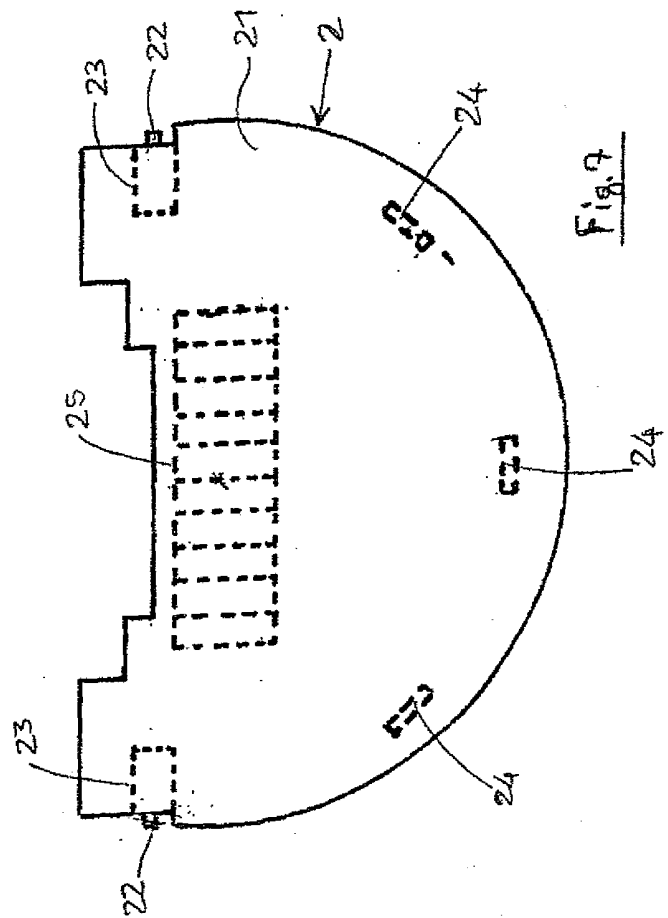
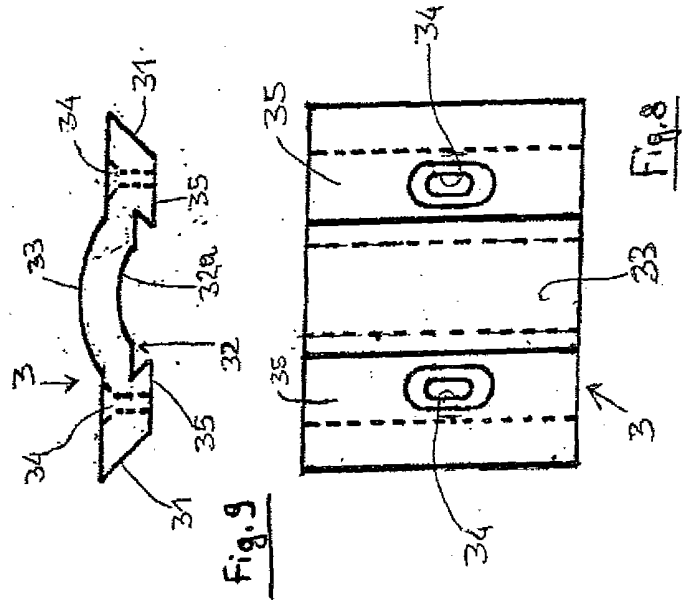
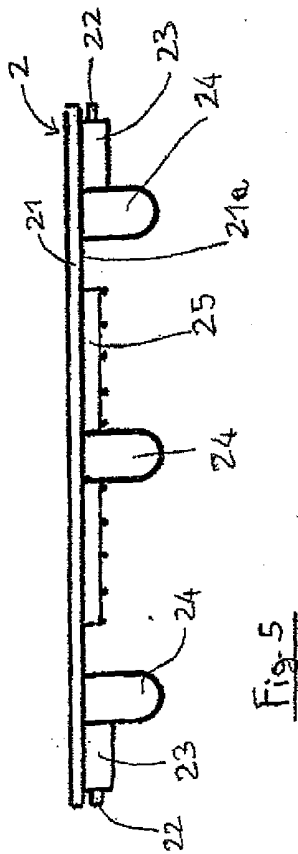
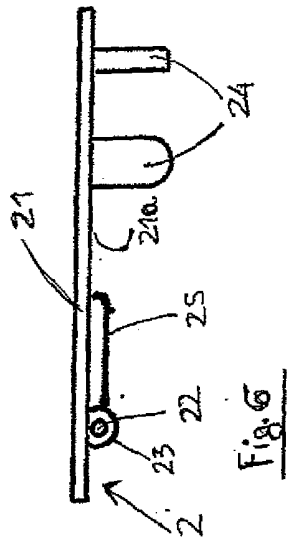
said curved wall (12) raise.

9. The device according to claim 8, wherein a hole (19a) is formed in said wall (14) for engaging with a screw for locking said plate (3) when inserted into said channel (17). 5
10. The device according to claim 8 or 9, wherein in the upper margin of said curved wall (12), delimiting said mouth (11a) of said compartment (11), cigarette-holding indentations (15) are formed. 10
11. The device according to any of claims 8 to 10, comprising a tiltable cover(2) for intercepting said mouth (11a), said cover being joined to said body at said diametral wall (13). 15
12. The device according to claim 11, wherein said cover (2) comprises a plate-shaped element(21) whose profile corresponds to the one of said mouth (11a) with a slight oversizing in such a manner to create a small projection capable of facilitating a manual grasp for opening by lifting. 20
13. The device according to claim 11 or 12, wherein said cover comprises a pair of projecting pins (22) extending from cylinders (23) integral with the lower face (21a) of the cover, that is the one intended to be internal with respect to the closed cover, which are inserted in a rotating manner into respective holes (16) formed in said body (1) at the raised portions of said curved wall (12), adjacent to said flat diametral wall (13), the distance of said holes (16) from said diametral wall (13), on which the attachment of the ashtray to the external support is carried out, being such to allow the cover (2) to remain permanently inclined at an open position. 25
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14. The device according to any one of the claims 11 to 13, wherein said cover (2) comprises projections (24) extending in such a manner to correspond fittingly with cigarette-holding indentations (15) formed in the upper margin of said body (1), blocking them in a manner not to release the content of said compartment (11), said projections (24) being capable of snap-engaging inside the indentations (15), or simply overlapping internally or externally thereto. 40
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15. The device according to any one of claims 11 to 14, wherein said cover (2) comprises, on the lower face (21a) intended to be internal when the cover is closed, means (25) for rubbing thereon the lit end of the cigarette. 50

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EUROPEAN SEARCH REPORT

Application Number
EP 08 16 1304

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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 4 November 2008	Examiner Marzano Monterosso
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			

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EUROPEAN SEARCH REPORT

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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