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(54) Domestic refuse container

(57) The invention's object, as its title indicates, is a refuse container for domestic use designed to collect waste or refuse at door to door level, whose container is capable of avoiding unpleasant odours from escaping outside, designed to fix inside a waste bag to isolate it from dirt, and allowing the lid to be held in a permanently open position to make the depositing of waste easier. Said container can be piled up in a stable manner and also suspended from a support.

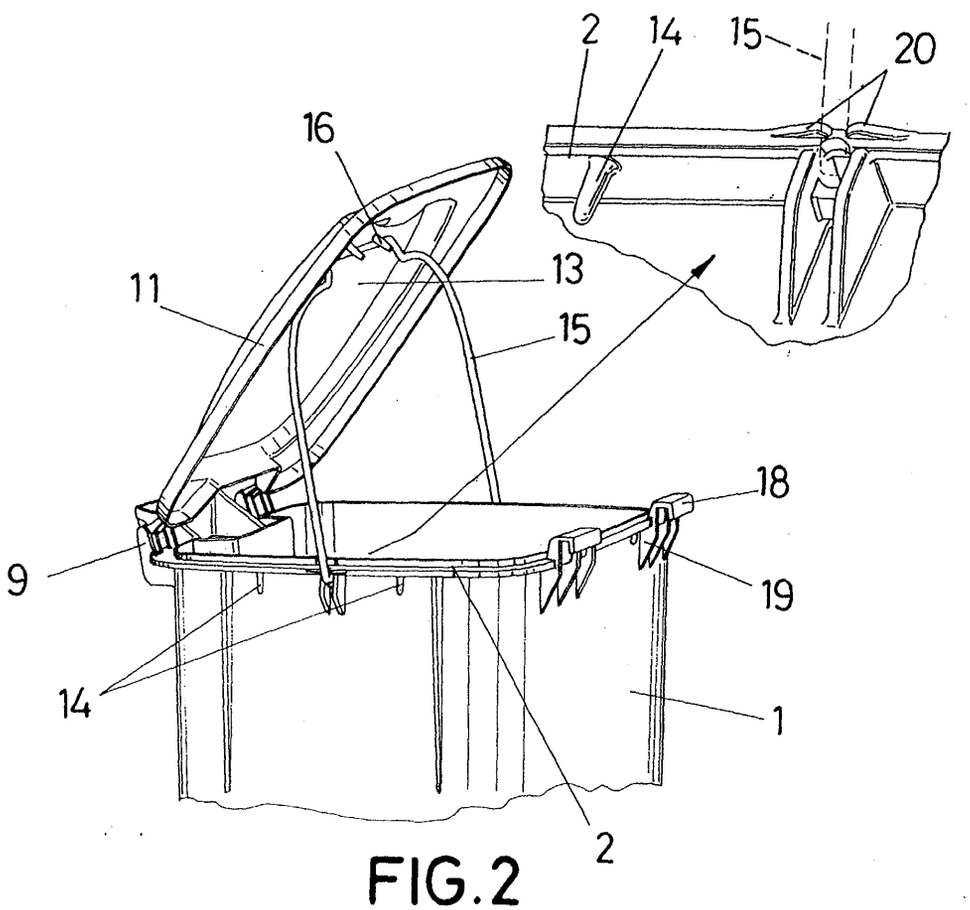


FIG.2

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Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a container of the type designed for collecting waste or refuse at door to door level, and which, at a relatively reduced size, e. g. between 35 and 50 litres, can indiscriminately hold all types of domestic waste or, combined with other similar types, can hold duly classified waste to make its subsequent recycling easier.

[0002] The object of the invention is to achieve a container with a lid, able to avoid unpleasant odours from escaping outside, equipped to firmly hold a rubbish bag inside, which isolates it from the dirt generated by the waste, capable of keeping the lid stable in an open position to make the depositing of waste easier, and can also be stacked up in a stable manner, and finally, that can be suspended from a supporting device, such as, for example, the side of a larger container.

BACKGROUND TO THE INVENTION

[0003] There are an infinite number of refuse containers for domestic use, fundamentally differentiated by their design, but basically of two types: those with a lid that is physically separate from the body with the obvious drawbacks derived from this fact, and others in which the lid is hinged onto the body. In this last group there are, in turn, another two types, one in which the lid is simply hinged onto the body, in such a way that one has to hold the lid open with one hand while depositing the waste inside with the other, which, in many cases, causes problems since it would be desirable to have both hands available when depositing waste, such as, for example, in the situation where a plate is being cleared using a piece of cutlery, and another, wherein, to leave both of the user's hands free, the lid is opened by a complex driving mechanism from a lower-front pedal, which makes the product considerably more expensive and entails a considerable risk of breakage.

[0004] Usually, a plastic bag is placed inside these containers so as to prevent the waste's direct contact with the walls of the container from dirtying it, without there being fixing devices for said bags, in such a way that bags of a significantly larger size with respect to the container must be resorted to, which are capable of, as well as adjusting to the internal area of the container, substantially overhanging from its mouth and folding against the outer face of the side surface.

[0005] Other problems inherent to conventional containers stem from their unsteadiness when potentially stacked up, the lack of means of fixing them to a support so as to group them together with others designed to receive different types of waste, as well as handling difficulties in general.

DESCRIPTION OF THE INVENTION

[0006] The container proposed by the invention solves the series of problems outlined above in a fully satisfactory manner, comprising a structurally simple and functionally efficient solution, at a perfectly affordable cost.

[0007] For this purpose and in a more specific manner, the container that the invention proposes comprises the functional combination of a body and a lid, as usual, with the body having a similar shape to a frustum so as to facilitate the stacking up of empty containers, but with the special characteristic of the lid having an upper projection coinciding in shape and in size with an indent at the base of the body, in such a way that when two containers are stacked up, in the closed position, they slot together ensuring perfect lateral stability for the upper container.

[0008] Moreover, the lid is hinged onto the body using laterally coupled pressure sensitive tongue and groove hinges, which allow the lid to be mounted quickly and easily.

[0009] According to another of the invention's characteristics, the container's body, which at the level of its mouth has an outer perimeter rim to reinforce its structure, incorporates on the underside of said rim and at least in the proximity of its vertices, lugs designed to secure and stabilise the plastic bag housed inside the body, in such a way that even if said bag is undersized with respect to the container, its support is perfectly ensured, with the mouth completely open.

[0010] It has also been envisaged that the container body incorporates, corresponding with said mouth perimeter rim, opposite the hinge-line, a pair of hooks or clasps that allow the container unit to hang from any appropriate support, such as for example, from the edge of a larger sized container.

[0011] It also provides for a sturdy fixed handle between the container's two hinges, joined to the body, to facilitate handling of the container, especially during operations for the emptying thereof, and for this purpose on the bottom there is also a pair of elongated indentations to accommodate the fingers and offer a better grip of the container body.

[0012] Finally, it has been provided that container body is also fitted with a conventional handle, materialised in an articulated "U"-shaped bar in the form of a bridge between two lateral points close to the mouth of the body, a handle which, when left down allows the lid to be opened and closed freely, but in the lid's open position can be slid underneath it and, with the help of a pair of lugs existing on the inside of said lid, can hold it perfectly open when depositing waste inside the container. For this purpose, said handle will incorporate at least one intermediary straight segment, for support on the lid's inner surface.

DESCRIPTION OF THE DRAWINGS

[0013] To complement the description that is being made and with the aim of contributing to a better understanding of the invention's characteristics, in accordance with a preferred example of practical embodiment thereof, a set of drawings is included as an integral part of said description, which, by way of illustration but not delimitation, shows the following:

Figure 1. Shows a perspective view of a domestic refuse container according to the object of the present invention, shown in the closed position.

Figure 2. Shows a partial view, also in perspective, of the container in the previous figure, now in a stable open position, provided by the swinging handle.

Figure 3. Shows a lower perspective view of the underside of the lid.

Figure 4. Shows a lower perspective close-up of the container body.

Figure 5. Shows, finally, a lateral perspective close-up and cross-section of two conveniently stacked containers, the lower one in a closed position.

PREFERRED EMBODIMENT OF THE INVENTION

[0014] In the light of the described figures, it can be seen how the container proposed by the invention consists of a body (1), of injected plastic, with a shape tending towards an inverted frustum, with a perimeter rim (2) at the level of its mouth that together with a plurality of brackets, which duly reinforces its structure, with said body incorporating a mostly indented base or bottom (3), thus forming a narrow perimeter skirting (4), and establishing in said base (3), close to its front and rear edges respectively, transversally elongated indentations (5) suitable in size for accommodating the tip of the fingers during container handling operations. At its top end, the body (1) incorporates, as a finish to the central longitudinal rear groove (6), a fixed handle (7) that forms a wide window (8) which also allows the hand to be inserted easily, and on either side of the handle (7) are located, by means of stabilising brackets, a pair of coaxial axes (10), which function as hinging devices for a lid (11), consisting of two groups of three clips (12) that can be attached to the respective axes (10) by exerting pressure and that complement the mechanism hinging the lid to the body; the lid has a large projecting mould, designed to form a dovetail joint on the base or bottom (3) of a second container situated on top of the first, in such a way that the skirting (4) of the latter acts as lateral retaining means when the containers are stacked, as shown on figure 5.

[0015] Returning again to the body (1) of the container, on the underside of its perimeter rim (2) it incorporates several lugs (14), conveniently distributed, acting as hooking devices for a plastic bag, which is the real waste container and which must be housed inside the body (1).

[0016] In addition, under this perimeter rim (2) and at the halfway point of the areas corresponding to the side walls of the body (1), the articulated ends of a handle (15) are incorporated, for a dual purpose, on the one hand to allow normal lifting of the container with its lid, as if it were a conventional container, and on the other hand to serve as a stop to hold up the lid (11) in the open position, as shown in figure 2, and for this purpose, the inner surface of the lid in the area opposite to its hinging area, has a pair of lugs (16) that support the handle (15) in said open lid position.

[0017] To conclude, it only remains to point out that the lid (11) has a slot (17) for manual operation thereof, obviously opposite its hinging area, and that at the front edge of the body (1), also in the area opposite the hinges, said body incorporates a pair of projections (18) as a hook or clasp, duly stabilised by means of brackets (19), which together form a concave transversal groove pointing downwards, which allows the container to be "suspended" from any suitable support, such as for example the side of a larger sized container, capable of holding several containers inside.

[0018] It has also been contemplated that corresponding to the points of articulation between the handle (15) and the body (1), at the level of the latter's mouth, pairs of small projections are incorporated, that clip the handle (15) in its open position, as shown in the enlarged close-up of figure 2, avoiding unwanted movement thereof during tipping operations to empty the container.

[0019] At the same time, it has also been envisaged that the triangular brackets that stabilise the perimeter rim (2) with respect to the body (1), specifically the brackets located in the rear area of its side walls and perfectly visible in figure 4, present their free upper vertex, the one that appears immediately below reference (11), slightly protruding and rounded, in such a way that in a first instance, the handle (15) can be supported against the protruding part of said brackets, held in a horizontal position, but optionally, at the user's discretion, can undergo elastic deformation, by means of pressure applied downwards on its centre, in such a way that its sides sustain slight elastic deformation until the vertex of the brackets is surpassed, and the handle folds down against the rear side of the body (1) of the container making the brackets also act as stops that prevent the handle from swinging back in the opposite direction, as long as pressure is not exerted on it with new deformation thereof, which allows the container to be manoeuvred for tipping without the handle (15) forming an obstacle for this purpose.

Claims

1. Domestic refuse container, of the type formed by the functional combination of a basic body and a lid, made of injected plastic and joined together by hinges, **characterized in that** said body, with a shape tending towards an frustum, incorporates a lower base affected predominantly by an indent shaping a narrow perimeter rim prolongation of its side wall, while at the level of its mouth there is a second perimeter rim, this time external, assisted by external stabilising brackets, a rim along which are established, on its underside and preferably close to its vertices a series of lugs that allow attaching and fixing of the complementary plastic bag designed for housing inside the container.

2. Domestic refuse container, according to claim 1, **characterized in that** its body incorporates a longitudinal central groove along its rear wall, finishing at the top with a fixed handle shaping a window that allows the hand to pass freely through it, a handle complemented by two elongated and parallel indents made on the inner surface of the body's underside.

3. Domestic refuse container, according to the preceding claims, **characterized in that** the lid incorporates a large upwards projection, matching the indent on the base of the body in shape and size, in such a way that by means of these elements perfect slotting is achieved when stacking the containers, transversally stabilising the upper container.

4. Domestic refuse container, according to the preceding claims, **characterized in that** the lid incorporates on its rear edge groups of three protrusions shaped as clips to slot into the transversal axes joints operatively established at the body's mouth, functioning as hinging devices between both elements, with said lid incorporating, opposite the hinging area, a groove for manually operating thereof.

5. Domestic refuse container, according to the preceding claims, **characterized in that** the articulations of the ends of the handle, which also acts as a stop to hold the lid in an open position, are joined to the side areas of the body, under the perimeter rim at its mouth and in a central position, to which effect said lid has on its inner surface and in the area opposite the hinging area, a pair of internal lugs by means of which it supports the handle in said open position.

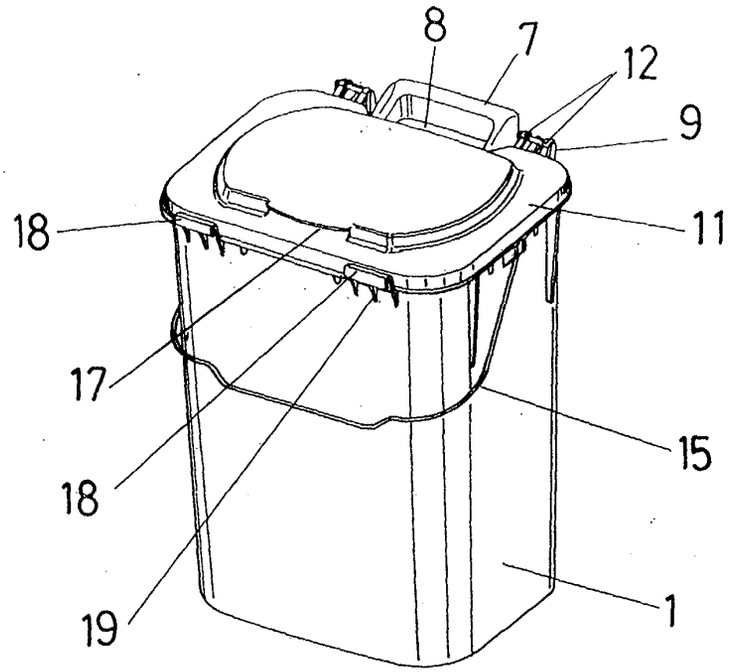


FIG.1

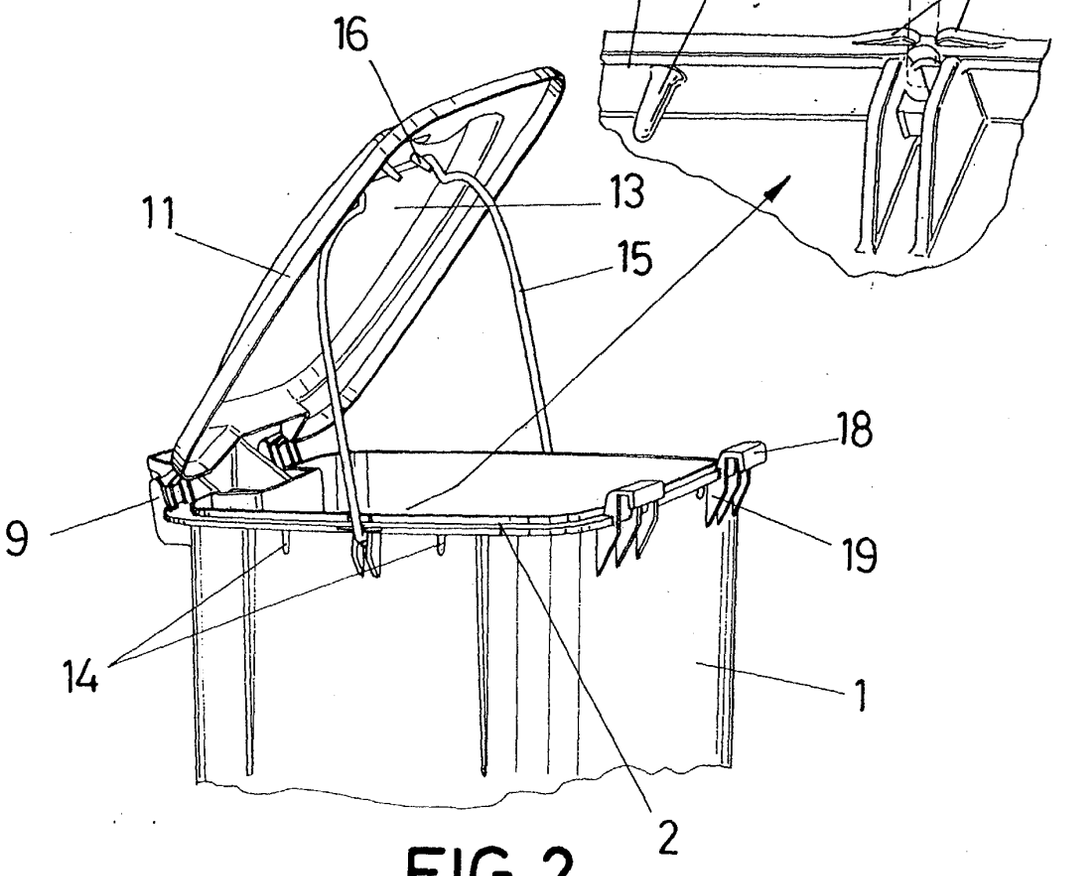


FIG.2

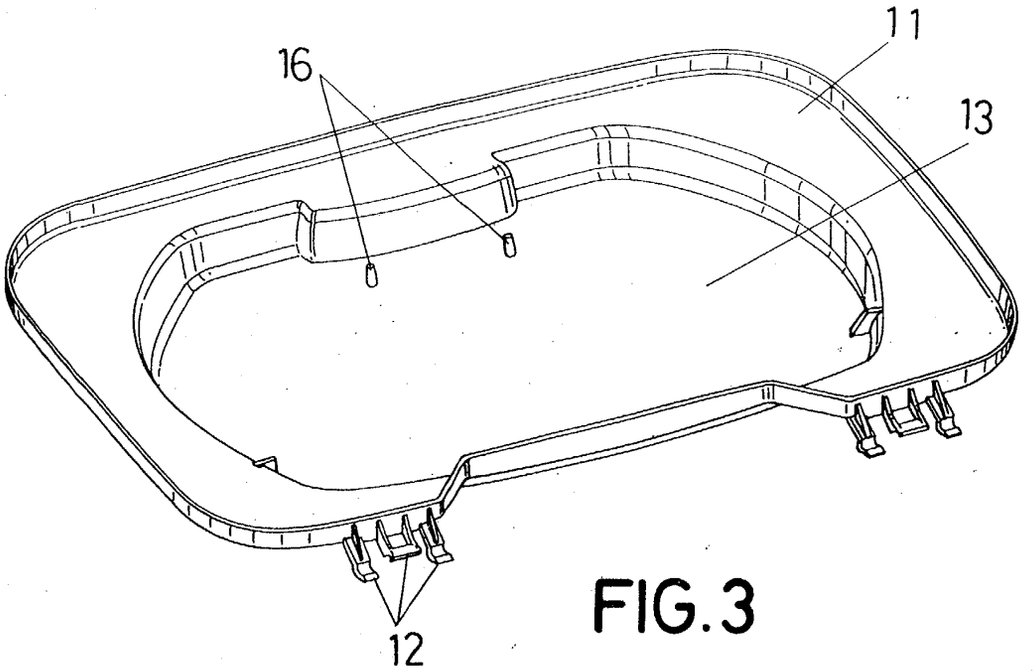


FIG.3

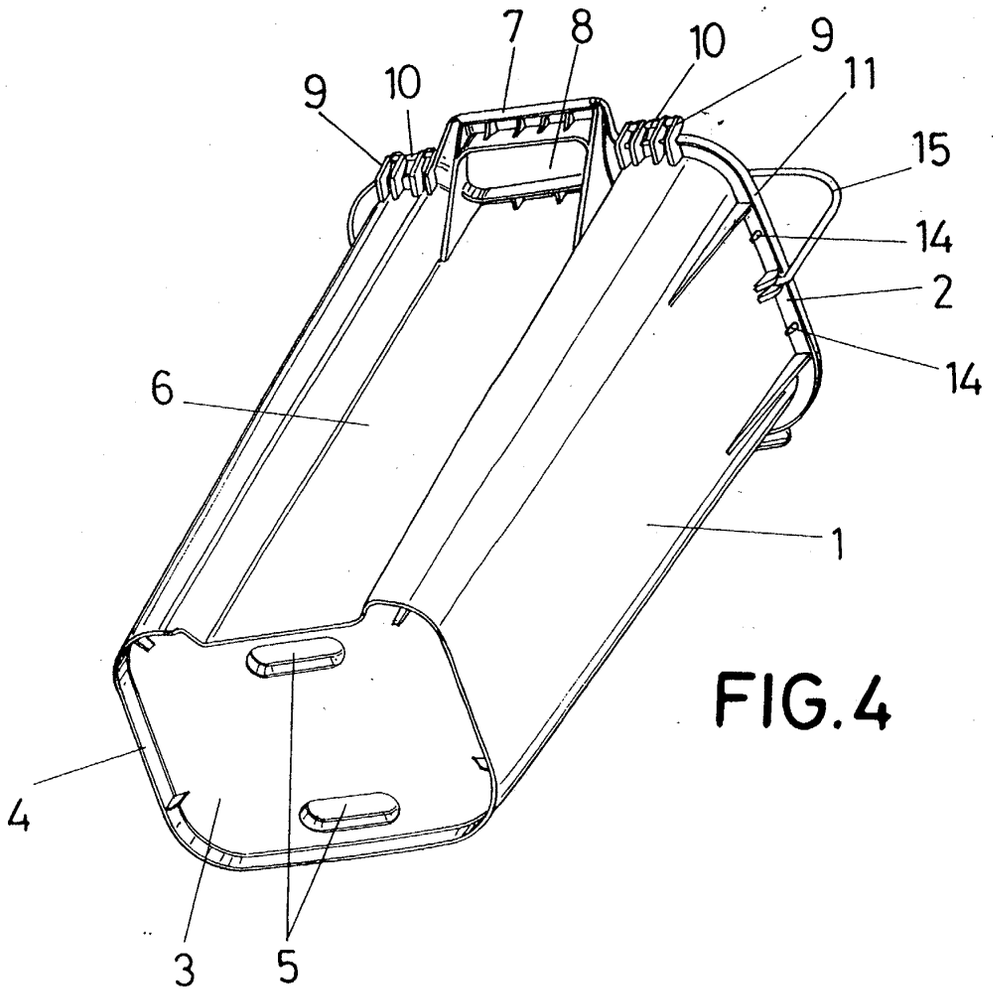


FIG.4

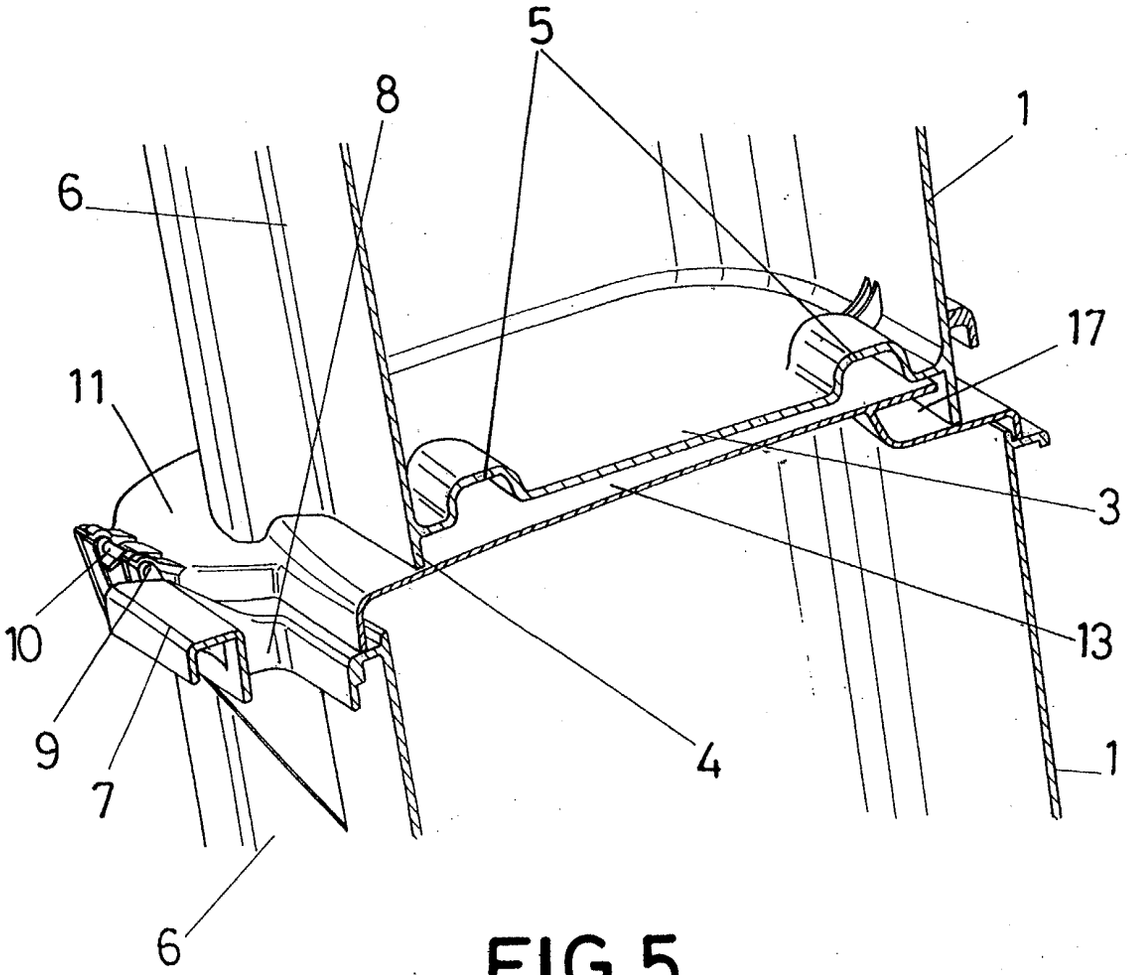


FIG.5

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EUROPEAN SEARCH REPORT

Application Number
EP 04 38 0075

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	17 June 2004	Smolders, R

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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