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(54) **MULTIFUNCTIONAL HAIR WASHING DEVICE**

(57) The invention relates to a multifunctional sanitary hair-washing device comprising two parts that can be detachably connected. The parts are formed by blanked laminar templates and comprise undercuts for coming into contact with the neck of the user, forming a front tub (1) and an additional rear element (2). The front tub (1) comprises at least one water outflow opening (3) used for washing the head. The two parts (1, 2) are joined by means of connecting means (6) which allow the movement of the additional rear element (2) over the front tub (1). Furthermore, the additional rear element (2) comprises at least one second undercut (8) on one side for coming into contact with the neck of the user in a second position of the hair-washing device, rendering said device more versatile.

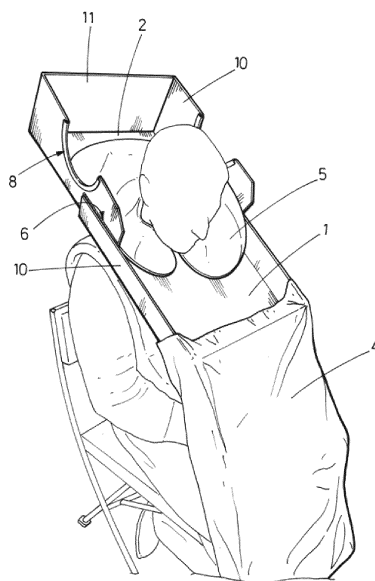


FIG.2

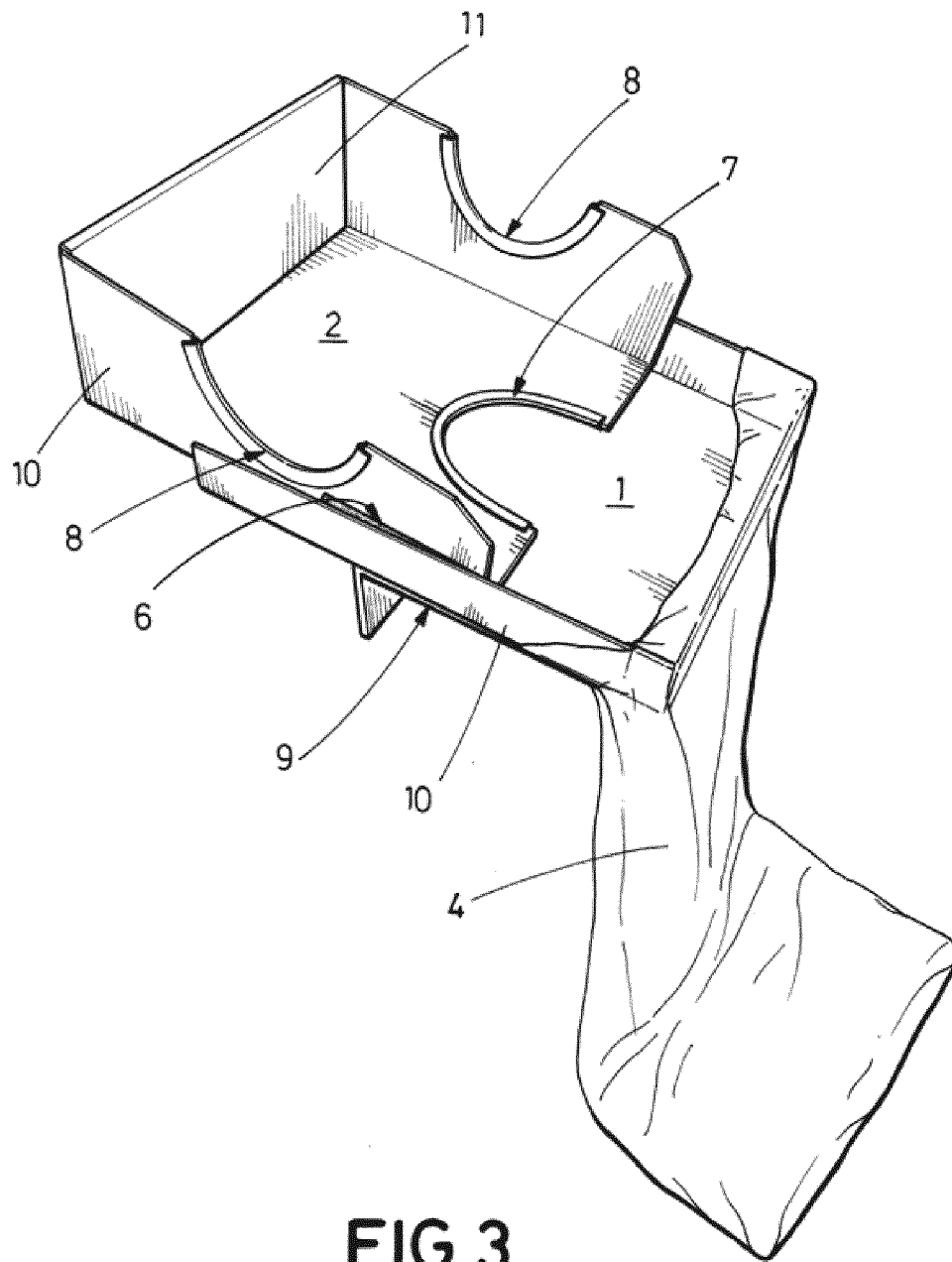


FIG.3

Description

OBJECT OF THE INVENTION

[0001] The present invention may be included within the technical field of devices that make it possible to wash a person's hair and more specifically, the hair of a person with a disability or reduced mobility.

BACKGROUND OF THE INVENTION

[0002] In the state of the art are known hair-washing devices that make it possible to wash the hair of a user without mobility problems, for example those used in hair-dressing salons wherein the user is sitting down with his head reclined over the sink, ready for washing.

[0003] However, when one wishes to wash the hair of users who are ill or have reduced mobility, a hair-washing device that is more comfortable, which can be used in nursing homes, homes, etc., becomes necessary so the user does not have to be transported to a hairdressing salon. Indeed, in many cases, this is not possible.

[0004] Some hair-washing devices are known in the state of the art that have been designed to facilitate the possibility of washing the hair of users with reduced mobility, who are however capable of sitting down in a seat in order to carry out the washing.

[0005] Likewise, hair-washing devices that make it possible to wash the hair of a user who is lying down are known. The main limitation of these hair-washing devices is that there is no possibility of emptying the water from the bowl and furthermore, they may only be used for users who are lying down.

[0006] Nevertheless, hair-washing devices that may be used for both users who might stand up or sit down and users who are lying down horizontally are not known in the state of the art.

DESCRIPTION OF THE INVENTION

[0007] The present invention proposes a multi-function sanitary hair-washing device that may be used with people with little mobility or without mobility. It is a very versatile hair-washing device and is light, economical and comfortable.

[0008] The present invention focuses on making it possible to wash the hair of a user who is ill or has reduced or no mobility, although it may also be used with people without mobility problems.

[0009] In the event of the hair-washing device being used to wash the hair of someone without mobility problems, the most convenient thing would be for the user to be sitting down, with his head reclined slightly backwards, as in hair-dressing salons, in order for the hair-washing device to be placed in the first position, which will be described in detail further on.

[0010] In the event of the hair-washing device being used to wash the hair of someone with some kind of ill-

ness, for example Alzheimer's or someone who is paralyzed or quadriplegic or who can put their neck or head in just one position, the most convenient thing would be to place the hair-washing device in the first position, as in the previous case. In this case, it is not necessary for the user to incline their head as they may rather be standing up or sitting down with their head upright.

[0011] Likewise, in the event of the user being located in a horizontal position on a bed, being unable to move or bend, the hair-washing device is placed in the second position and may be used to wash the hair of said user.

[0012] The most significant characteristic of the hair-wash device described is therefore that, simply by changing the position of the elements from which it is composed, it may be used to wash the hair of a user who is standing up or sitting down and also to wash the hair of a user who is lying down.

[0013] The hair-washing device of the present invention essentially comprises two pieces, which are connected together in a dismountable way and are formed by die-cut laminar panels with fold lines, by means of which a front basin and a rear appendage are formed. Both pieces are coupled together and on one of them, specifically the front basin, there is at least one water outlet opening, to facilitate the emptying of wash water from inside the pieces. At the end on which the water outlet opening is located, a bag is fitted to collect the wash water.

[0014] Both panels comprise a first recess on one of the ends thereof, intended to come into contact with the user's neck in a first hair-washing device position, said first recesses having anti-rubbing protection means. When the front basin and the rear appendage are coupled, the first recesses face one another.

[0015] The connection between the front basin and the rear appendage is made using a number of connecting means that enable the rear appendage to move relative to the front basin, in order to go from the first position to the second position.

[0016] In the first position, the front basin and rear appendage are placed in such a way that between the first recesses of both, a space is created in which the users put their neck when the hair-washing device is used to wash the hair of a user who is standing up or sitting down.

[0017] In the second position, the first recess of the rear appendage is on the front basin, in such a way that the space mentioned above is covered completely.

[0018] The rear appendage comprises a second recess, located on a side closure intended to come into contact with the user's neck in this second position. This second recess has anti-rubbing protection means.

[0019] The present invention therefore proposes a highly versatile hair-washing device, which may be used for both users who are standing up or sitting down and users who are lying down horizontally, simply by moving the rear appendage on the front basin.

DESCRIPTION OF THE DRAWINGS

[0020] To complement the description being made and with the aim of facilitating a better understanding of the invention characteristics, according to a preferred practical exemplary embodiment of the same, a set of drawings is attached as an integral part of said description, in which, by way of non-limiting illustration, the following has been represented:

Figure 1a. - shows a view of the rear appendage panel.

Figure 1b. - shows is a view of the front basin panel.

Figure 2. - shows a view of the multi-functional sanitary hair-washing device in the first position for washing the hair of a user who is sitting down or standing up.

Figure 3. - shows a view of the multi-functional sanitary hair-washing device in the second position for washing the hair of a user who is lying down horizontally.

PREFERRED EMBODIMENT OF THE INVENTION

[0021] The present invention proposes a multi-functional sanitary hair-washing device that makes it possible to wash the hair of both a user who is sitting down and a user who is lying down. In order to enable this versatility, the elements of the hair-washing device of the present invention are moved amongst each other between a first position, intended to make it possible to wash the hair of a user who is sitting down or standing up, and a second position, intended to make it possible to wash the hair of a user who is lying down.

[0022] The multi-functional sanitary hair-washing device of the present invention is of the variety formed by two pieces that are connected together in a dismountable way. Said pieces are formed by die-cut laminar panels with fold lines, constituting a front basin (1) and a rear appendage (2).

[0023] The pieces of the front basin (1) and the rear appendage (2) comprise a quadrangular base and at the sides, have two foldable portions constituting the side closures (10). On the opposite side, they have two successive portions that may be folded (11) with one another, in order to receive a number of end flaps (12), which extend from the side portions, in order to reinforce the piece. They have tabs (13) in corresponding interlocking openings (14).

[0024] The front basin (1) and rear appendage (2) are intended to be coupled together and both panels comprise a first recess (7) at one of the ends thereof, intended to come into contact with the user's neck in a first position of the hair-washing device, said first recesses (7) having anti-rubbing protection means. In the first hair-washing

device position, the front basin (1) and rear appendage (2) are coupled in such a way that between the first recess (7) of the front basin (1) and the first recess (7) of the rear appendage (2), there is a separating distance great enough for the user's neck to be placed in the space created between the same. This first position, which can be seen in Figure 1, is designed for washing the hair of users who are sitting down or standing up.

[0025] The front basin (1) has at least one water outlet opening (3) on one of its ends and a number of hooking means, to which a bag (4) for collecting water is fixed in a dismountable way and with some adjustability, this bag covering the at least one outlet opening (3) of the water. The water used to wash the user's hair runs into the front basin (1) and is directed towards the water outlet opening (3) to the bag (4), where it is collected in order to make the washing operation more comfortable.

[0026] Likewise, the hair washing device has a laminar hair-dressing collar (5) made of impermeable flexible material, which overlaps part of the front basin (1) and upper appendage (2). The hairdressing collar (5) prevents some of the wash water from seeping into the space around the user's neck between the first recesses (7) of the front basin (1) and the rear appendage (2).

[0027] The most significant characteristic of the hair-washing device of the present function is that the front basin (1) and rear appendage (2) are connected by a number of connecting means (6), located in the side closures (10) of the front basin (1) and rear appendage (2), which make it possible to move the rear appendage (2) relative to said front basin (1), in order to go from the first position described above to a second position, especially designed for washing the hair of users who are lying down in a horizontal position. In one embodiment of the invention, the connecting means (6) are of the Velcro® variety. In the second position, the rear appendage (2) is moved on the front basin (1) until the first recess (7) of the rear appendage (2) is completely over the front basin (1), likewise covering the first recess (7) of said front basin (1).

[0028] Furthermore, in order to make it possible to wash the hair of a user who is lying down, in the front basin (1) given that the rear appendage (2) comprises at least a second recess (8), intended to come into contact with the user's neck in a second position of the hair-washing device, said second recess (8) having anti-rubbing protection means.

[0029] In a preferred embodiment of the invention, the multi-functional sanitary hair-washing device additionally comprises an inclining element (9), intended to incline the rear appendage (2) and front basin (1) towards the end of the front basin (1), where the water outlet opening (3) is located. The inclining element (9) has at least one inclined face, intended to come into contact with the lower face of the front basin (1) and has a flat face intended to serve as support for the hair-washing device.

[0030] When the hair-washing device is used in the second position, as shown in Figure 2, since it is fitted on the bed upon which the user is resting, the rear ap-

pendage (2) and front basin (1) remain in a horizontal position, thus meaning the wash water cannot be emptied so easily into the bag (4). The inclining element (9) therefore, makes it possible to incline the rear appendage (2) and the front basin (1) to a certain degree towards the end of the front basin (1), where the bag (4) for collecting water is fitted. This facilitates the collection of wash water.

[0031] In another embodiment of the invention, the rear appendage (2) of the multi-functional sanitary hair-washing device comprises two second recesses (8) arranged on the side closures (10) of said rear appendage (2). Each second recess is in one of the side closures (10), in such a way that the hair-washing device may be used simply, with users who are lying down, independently of the direction of the same on the bed, or the side at which the bed is facing the wall, etc.

[0032] In one embodiment of the invention, the panels of the front basin (1) and the rear appendage (2) are made from plasticized cardboard. Therefore, the hair-washing device withstands the wash water without becoming soaked and at the same time, it is easy to construct and economical. The pieces of the hair-washing device are used during a considerable number of washes. Afterwards, it is possible to throw away just some of the pieces and change them for new ones or even for all of the pieces to be thrown away and changed for new ones as appropriate.

Claims

1. A multi-functional sanitary hair-washing device of the variety formed by two pieces, connected together in a dismountable way, said pieces being formed by die-cut laminar panels with fold lines, which constitute a front basin (1) and a rear appendage (2), intended to be coupled to one another and both panels comprise a first recess (7) at one of the ends thereof, intended to come into contact with the user's neck in a first position of the hair-washing device, and said first recesses (7) have anti-rubbing protection means; the front basin (1) has at least one water outlet opening (3) on one of its ends and a number of hooking means, upon which a water collection bag (4) is fixed in a dismountable way with certain adjustability, which covers the at least one outlet opening (3) of the same; the hair-washing device has a laminar hairdressing collar (5) made of impermeable flexible material, which overlaps part of the front basin (1) and upper appendage (2); the hair-washing device is **characterised in that** the front basin (1) and rear appendage (2) are connected by a number of connecting means (6) located in the side closures (10) of the front basin (1) and rear appendage (2) and they facilitate the movement of the rear appendage (2) on the front basin (1) and **in that** the rear appendage (2) comprises at least a second recess (8) intended to come into contact with the user's neck

in a second position of the hair-washing device, and said second recess (8) has anti-rubbing protection means.

2. The multi-functional sanitary hair-washing device according to claim 1, **characterised in that** it additionally comprises an inclining element (9), intended to incline the rear appendage (2) and front basin (1) towards the end of the front basin (1), wherein the water outlet opening (3) is located, and **in that** it has an inclined face, intended to come into contact with the lower face of the front basin (1) and a flat face intended to serve as support for the hair-washing device.
3. The multi-functional sanitary hair-washing device according to claim 1, **characterised in that** the rear appendage (2) comprises two second recesses (8), arranged on the side closures (10) of said rear appendage (2).
4. The multi-functional sanitary hair-washing device according to claim 1, **characterised in that** the connecting means (6) are of the Velcro ® variety.
5. The multi-functional sanitary hair-washing device according to claim 1, **characterised in that** the panels of the front basin (1) and rear appendage (2) are made from plasticised cardboard.

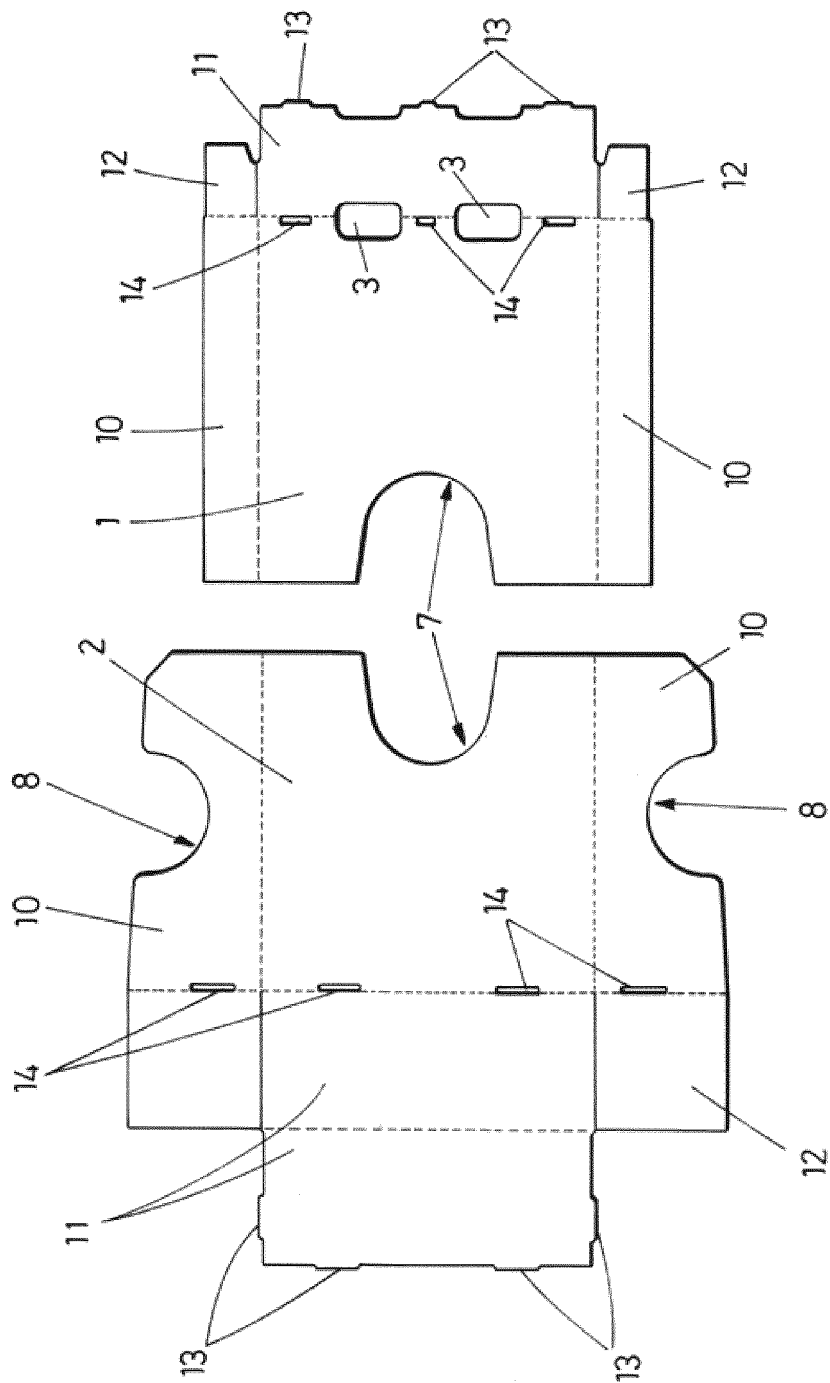


FIG.1b

FIG.1a

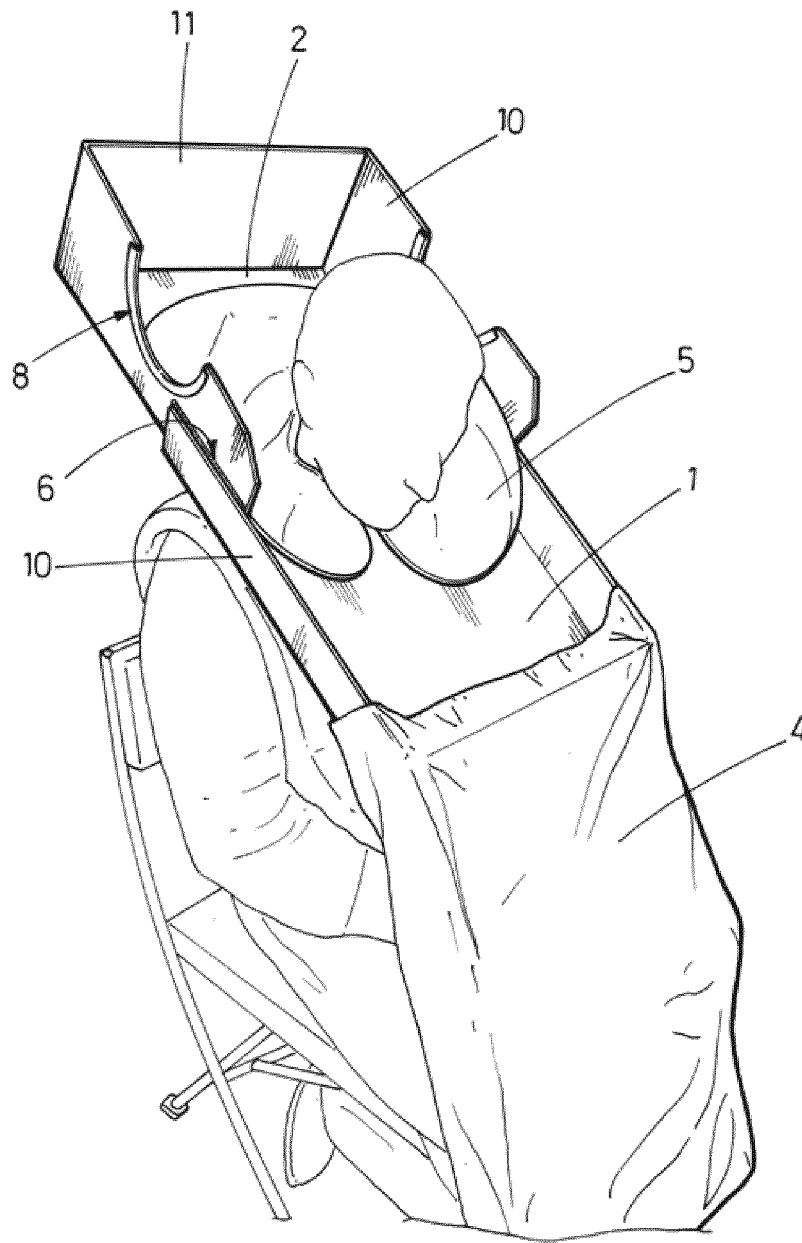


FIG.2

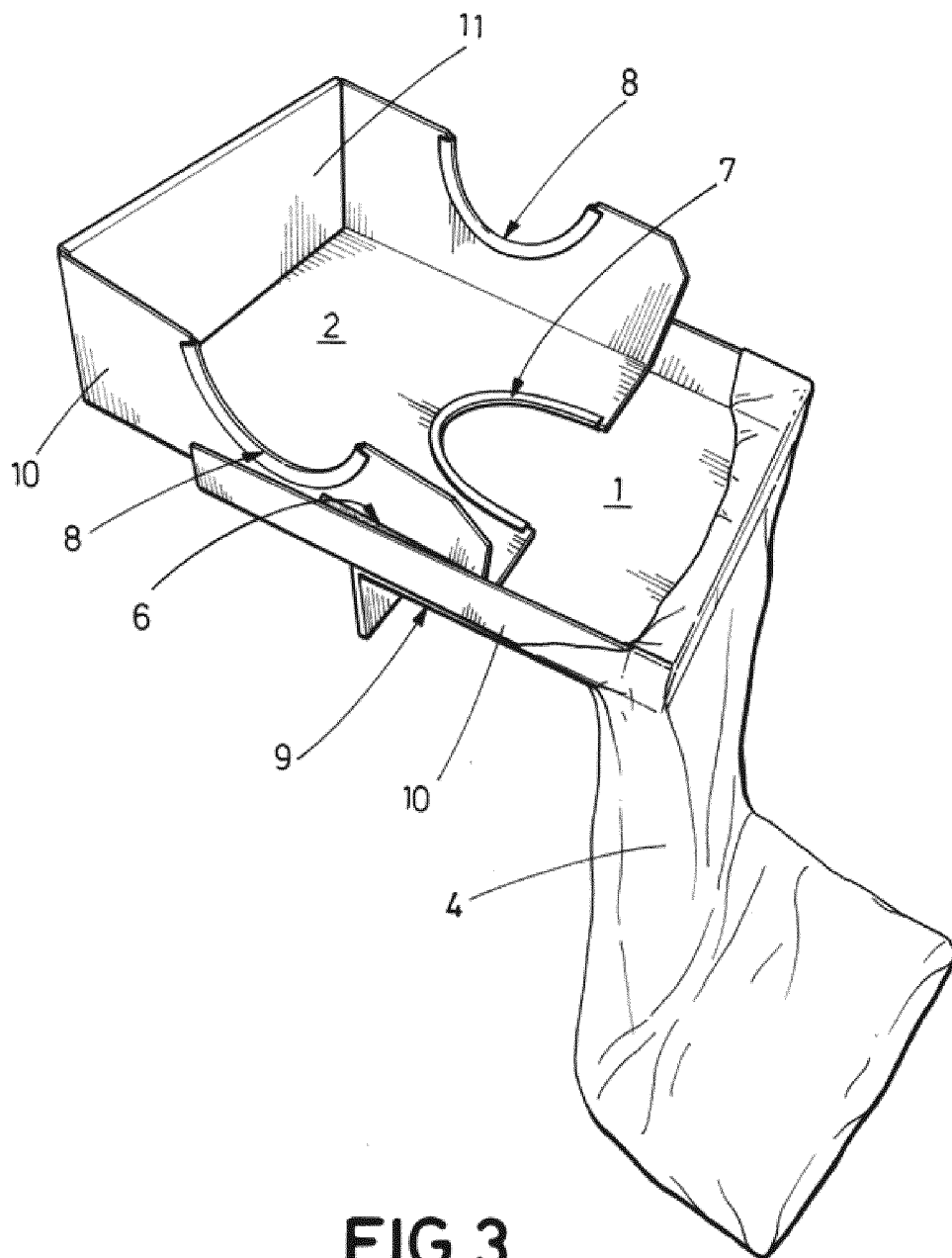


FIG.3

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES2014/070424

A. CLASSIFICATION OF SUBJECT MATTER

INV. A45D19/04 A45D19/06 A45D19/10 A61G7/00 A61H35/00
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A45D A61G A61H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006/040383 A1 (BONILLA GONZALEZ FRANCISCO) 20 April 2006 (2006-04-20) the whole document	1-5
A	GB 2 439 044 A (SALES ALAN CHARLES) 19 December 2007 (2007-12-19) the whole document	1-5



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/ES2014/070424

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