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(54) **Waste container**

tainer wall (12,13,14,15). In order to allow temporary storage of a waste portion, a bio waste portion for example, at least one shelf device (30) for temporary storage of a waste portion (50) is arranged inside the container body (11) on at least one container wall (12,13,14,15).



Description

[0001] The present invention relates to a waste container according to the preamble of claim 1.

[0002] In general, such waste containers comprise a container body for picking up waste. The container body comprises a base and at least one container wall. The container body can be closed by use of a container lid which is mounted on the container body.

[0003] Such waste containers can be used for picking up and storing all kinds of waste. One field of application of such waste containers is the storage of bio waste. The freezing of bio waste in waste containers, so called bio bins, is a since long debated problem especially on the Nordic Markets. The wet bio waste freezes to an ice lump and gets stuck in the waste container causing big problems for the collectors. A common recommendation from the municipalities is to place the bio waste in a paper bag outside the container body or on top of the container lid until coming with next bag. According to such a solution the first paper bag containing bio waste will have been frozen and will not get stuck in the waste container. However, this solution is neither esthetic nor practical, due to disfigurement of the area around the waste container, damaging to the paper bags by animals and the like.

[0004] It is the object of the present invention to provide an improved waste container which can overcome the aforementioned problems and drawbacks. In particular, it is the object of the present invention to provide a waste container which allows temporary storage of a waste portion, a bio waste portion for example, in a practical and easy way.

[0005] In accordance with the present invention, this object is solved by the waste container with the features according to independent claim 1. Additional features and details of the present invention become apparent from the dependent claims, from the description and from the drawings.

[0006] Pursuant to the present invention the object is solved by a waste container, said waste container comprising a container body for picking up waste, said container body comprising a container base and at least one container wall. The waste container is characterized in that at least one shelf device for temporary storage of a waste portion is provided said at least one shelf device being arranged inside the container body on at least one container wall.

[0007] The present invention is based on the general finding that a shelf device which is capable of temporarily storing a waste portion, a bio waste portion for example, is mounted inside the container body. Therefore, the waste portion is stored inside the container body.

[0008] According to the present invention, a waste container is provided. This waste container is adapted to pick up waste. However, the present invention is not limited to specific types of waste containers or to specific types of waste or waste fractions that can be picked up and stored by said waste container. According to a preferred

embodiment, the present invention is directed to a waste container for picking up bio waste. In such a case waste container can function as a so called "bio bin".

[0009] The waste container comprises a container body. The container body preferably comprises a container base. At least one container wall projects from said container base to an upper edge of said container body. Based on the container configuration, the waste container can comprise one single container wall, for example if the waste container body is round shaped, oval shaped or the like. In case that the container body has a polygonal shape, for example a quadrangular shape, the container wall comprises different, for example four, walls, which are connected to one another. In case of a quadrangular shaped container body, the container wall can comprise a front wall, a rear wall and two side walls. The container body comprising one container wall or more than one container walls can be manufactured and provided as a one-piece container body.

[0010] The container wall and the container base border or delimit a container internal space, said internal space defining the space for picking up waste.

[0011] At the upper edge of the container wall, which is particularly opposite to the container base, the container body comprises a collecting opening for collecting waste. Preferably this collecting opening is bordered or delimited by the container wall or walls. In such a case, the collecting opening extends over the entire cross-section of the container body at the upper ending of the container body.

[0012] According to the present invention, at least one shelf device is provided, said shelf device being adapted for temporary storage of a waste portion. However the present invention is not limited to a specific number of shelf devices. According to a preferred embodiment, one single shelf device is provided. However, according to different embodiments, two or more shelf devices could be provided. The number of shelf devices particularly depends on the configuration and size of the waste container.

[0013] The shelf device is adapted to temporarily storing a waste portion. The present invention is not limited to specific types of waste that can be stored. According to a preferred embodiment, a bio waste portion can be stored. A waste portion can be an amount of waste that is preferably stored inside a box or a bag, a paper bag for example. According to a preferred embodiment of the present invention, a waste portion is an amount of bio waste that is stored inside a paper bag. However the present invention is not limited to specific types or arrangements or designs of waste portions.

[0014] According to the present invention, the at least one shelf device is arranged inside the container body on at least one container wall. Thus, the shelf device can be fixed or is fixed at the inner surface of the container wall, said inner surface bordering or delimiting the container internal space said internal space defining the space for picking up waste.

[0015] According to a preferred embodiment, the shelf device is arranged inside the container body and therefore, inside the waste container. The shelf device is adapted to pick up a waste portion, a waste bag for example, and then when coming with the next waste portion, drop the waste portion stored on the shelf device into the container body and place the next waste portion on the shelf device.

[0016] According to a preferred embodiment, the shelf device can be arranged in a way that it swings against the container wall, when the waste container is discharged. Once the waste container has been replaced to the ground after the discharge procedure has been finished, the shelf device can swing into a position where it can pick up a waste portion again. More details of such a preferred embodiment are described in more detail further below.

[0017] The waste container according to the present invention which comprises at least one shelf device inside the container body allows dehydrating the waste, particularly the bio waste, which is stored on said shelf device, during summer, thus reducing the weight of the waste and the occurrence of bad odors. During winter, the waste portion freezes to a bloc on the shelf device which facilitates the discharge procedure of the waste container. According to a preferred embodiment the waste portion may remain on the shelf device until the next waste portion is delivered.

[0018] In particular, the present invention provides a solution which allows a waste portion, a bag with bio waste for example to be placed on the shelf device for ventilation during summertime and "pre-freezing" on winter time, in order to reduce smell and freezing problems.

[0019] The shelf device can be mounted on the container wall in different ways. Therefore the present invention is not delimited to any specific embodiments. However, in the following, different preferred embodiments are described in greater detail how the shelf device can be arranged at a container wall.

[0020] It is preferred that at least one shelf device is pivot mounted on at least one container wall. In particular the at least one shelf device is pivot mounted via a pivot axis, which can be denoted as a swivelling axis or a rotational axis as well. In particular, a swivelling arrangement or connection is a connection that allows the connected object, the shelf device for example, to rotate horizontally and/or vertically. In particular a swivelling connection is a kind of connection which allows the shelf device to turn round on a horizontal axis in relation to said container body. In particular, a rotational arrangement or connection is a connection, which allows an object, the shelf device for example, to turn around a centre or axis in a circular motion. In particular, a pivot axis is an axis consisting of a shaft that supports something that turns, for example the shelf device.

[0021] According to a preferred embodiment at least one shelf device is mounted on at least one container wall via a hinge device. Preferably, the shelf device is

hinged to allow problem free emptying of the waste container.

[0022] It is preferred that at least one shelf device is pivot mounted on at least one container wall to allow a pivot movement of the shelf device from an orientation parallel to the container wall into an orientation perpendicular or almost perpendicular to the container wall. An orientation parallel to the container wall is preferably chosen, when the waste container is discharged. An orientation perpendicular, which is particularly a 90 degree orientation, or almost perpendicular to the container wall is preferably chosen, when the shelf device is ready or in use for picking up a waste portion.

[0023] According to a preferred embodiment the shelf device is pivot mounted on the container wall around a first axis; a swivelling axis, a rotational axis, a pivot axis or the like. For example, this can be realised via a hinge device, a pivot joint, a swivel joint or a rotational joint for example. In particular the shelf device is pivot mounted via a hinge device, a knuckle joint and the like on the container wall. The shelf device can be swung up and down. In its swung up state the shelf device is preferably oriented in parallel to the container wall. In this state the waste container can be discharged by use of an adequate equipped waste collecting vehicle for example. In its swung down state, which can be 90 degrees for example, the shelf device is preferably oriented perpendicular or almost perpendicular to the container wall. In this state a waste portion can be stored on said shelf device. Preferably, the shelf device is hinged to allow problem free emptying of the bin. Thus, it folds to the side of the waste container when emptied and then falls back in supported position again when the waste container is replaced on ground.

[0024] According to a different preferred embodiment, at least one shelf device is mounted on at least one container wall via a plug connection. In such case the container wall or the shelf device comprises at least one bolt of protrusion which fit into respective recesses or openings or holes inside the shelf device or container wall. If the waste container is discharged, the shelf device is removed from the container body. Once the discharging procedure has been finished the shelf device is plugged to the container wall again.

[0025] According to a preferred embodiment, a fixing device is provided for fixation of at least one shelf device in at least one defined position. The present invention is not limited to specific types of fixing devices. The fixing device is adapted to fix, fasten, secure, lock at least one shelf device in at least one defined position, alignment or adjustment. However, the present invention is not limited to specific positions or a number of defined positions. For example, the fixing device can be adapted to fix at least one shelf device in a position parallel to the container wall and/or in a position perpendicular or almost perpendicular to the container wall.

[0026] The shelf device can be detachably or non-detachably mounted on the container wall.

[0027] In the following a preferred embodiment of the shelf device is described. However, the present invention is not limited to this specific embodiment. According to this embodiment at least one shelf device is formed as an arrangement of rods. The arrangement can comprise one or more rods. Preferably the arrangement of rods is formed in a way, that the rods themselves cover a minimum of surface area. On the other hand the rods shall provide a maximum of support points for supporting the waste portion to be stored. According to preferred embodiments the arrangement of rods can provide a curved or looped or strapped or meander shaped configuration.

[0028] According to a preferred embodiment the container body comprises a rear wall, a front wall and two side walls. At least one shelf device is arranged on the rear wall and/or on at least one side wall.

[0029] It is preferred that at least one container wall comprises at least one ventilation aperture and that at least one shelf device is arranged on the container wall in the area or vicinity of the at least one ventilation aperture. Such ventilation apertures are preferably provided, when the waste container is used for storing bio waste. Preferably more than one ventilation aperture is provided.

[0030] According to a preferred embodiment the shelf device is mounted on the container wall by use of such ventilation apertures. According to a different embodiment, fastening apertures for fastening the shelf device have to be brought, drilled for example, into the container wall in advance. In any case the shelf device can be sold to already existing waste containers as an accessory.

[0031] It is preferred that at least one shelf device is arranged on the at least one container wall in the upper section thereof. The upper section can be the upper half or the upper third or the upper quarter of the container wall for example. The upper section is defined from the container base in direction of the upper edge of the container wall. In any case it is preferred that the shelf device is mounted on the container wall nearby to the upper edge of the container wall such that it is easy to place a waste portion on the shelf device. On the other hand, enough space for storing waste inside the waste container shall remain.

[0032] According to a preferred embodiment at least one shelf device is arranged on at least one container wall via a clips connection and/or a clamp connection and/or a screw connection and/or a bolt connection and/or a rivet connection. However the present invention is not delimited to those specific types of connection. Preferably, the shelf device is clipped or screwed. Preferably the shelf device can be mounted into the existing hole picture created by the punched sides or alternatively mounted into hole picture which has to be drilled on side or backside of closed container.

[0033] In particular, at least one shelf device is made of a metal material or a plastic material. However the present invention is not limited to any types of material.

[0034] It is preferred that the waste container comprises

a container lid for closing the container body, in particular for closing the charging opening of the container body. In such a case the waste portion can be temporarily stored on the shelf device with the waste container being closed. For this reason the container lid is arranged to/at the container body in a suitable manner. For example, the container lid can be pivot mounted on said container body. In particular this can be realised in a manner as mentioned above with regard to the shelf device, for example by use of a hinge device.

[0035] According to a preferred embodiment the waste container is a mobile waste container. Such a waste container preferably comprises a travelling gear, said travelling gear comprising a number of wheels. It is preferred that the mobile waste container comprises two wheels, said wheels being mounted on a common first axis.

[0036] According to another embodiment, each wheel can be mounted separately from the other wheel on an individual axis. According to a preferred embodiment, the mobile waste container comprises at least one additional wheel, a third wheel for example, said additional wheel being mounted on a second axis, said second axis being spaced from said first axis. The additional wheel can be mounted in such a way that it can change its rolling or running direction.

[0037] By use of such a travelling gear the waste container can be easily moved to a waste collection vehicle without any expenditure of energy. The waste container can be moved without the necessity of tilting the waste container. In addition it is much easier to align the waste container. If the first wheels on the first axis are arranged in the area of the rear wall of the container body, the additional wheel on the second axis is preferably arranged in the area of the front wall of the container body. The additional wheel can be described as a kind of "front wheel" for manoeuvring the waste container.

[0038] The waste container according to the present invention particularly comprises one or more features which become apparent from the claims, the description, the embodiments and from the drawings.

[0039] For a better understanding of the present invention, a preferred embodiment of the present invention will now be described by way of an example with reference to the accompanying drawings, in which

- Figure 1 depicts a preferred embodiment of a shelf device according to the present invention in its operational state;
- Figure 2 depicts a perspective view of a waste container incorporating such a shelf device according to Figure 1;
- Figure 3 is a plan view on the waste container according to Figure 2;
- Figure 4 is a cross-sectional view according to intersection line A-A as depicted in Figure 3;
- Figure 5 is a cross-sectional view according to intersection line B-B as depicted in Figure 3;
- Figure 6 depicts the preferred embodiment of a shelf

- device according to the present invention in its discharging state;
- Figure 7 depicts a perspective view of the waste container incorporating such a shelf device according to Figure 6;
- Figure 8 is a plan view on the waste container according to Figure 7;
- Figure 9 is a cross-sectional view according to intersection line A-A as depicted in Figure 8; and
- Figure 10 is a cross-sectional view according to intersection line B-B as depicted in Figure 8.

[0040] In Figures 2 to 5 and 7 to 10 a waste container 10 is depicted, said waste container being 10 used for picking up and storing bio waste.

[0041] The waste container 10 comprises a container body 11. The container body 11 comprises four container walls, a front wall 12, a rear wall 15 and two side walls 13, 14. Furthermore container body 11 comprises a container base 16. A travelling gear comprising two wheels 21, 22 is provided in the area of container base 16. The container walls 12, 13, 14, 15 extend from the container base 16 to an upper edge 17 of container body 11. The upper edge 17 borders or delimits a charging opening 18 of container body 11, by use of which waste can be inserted into the internal space 24 of container body 11, and therefore into waste container 10. The container body 11, in particular the charging opening 18 can be closed by a container lid 19 which is arranged to the container body 11 by use of a hinge device 20. Thus, container lid 19 can be swung open and closed. Since the waste container 10 is used as a waste container for storing bio waste it comprises a number of ventilation apertures 23 as depicted in Figures 4 and 9. The ventilation apertures 23 according to the embodiment are arranged inside the rear wall 15 of waste container 10.

[0042] For temporarily storing a waste portion, a paper bag with bio waste for example, a shelf device 30 as depicted in Figures 1 and 6 is provided. The shelf device 30 is formed as an arrangement of rods. The arrangement comprises seven rods 31, 32, 33, 34, 35, 36, 37. Preferably the arrangement of rods is formed in a way, that the rods themselves cover a minimum of surface area. On the other hand the rods provide a maximum of support points for supporting the waste portion to be stored. According to a preferred embodiment the arrangement of rods can provide a curved or looped or strapped or meander shaped configuration.

[0043] Via a hinge device 38 the shelf device 30 can be pivot mounted around a pivot axis 39 on at least one container wall of waste container 10.

[0044] As further evident from the Figures the shelf device 30 is pivot mounted on the rear wall 15 of container body 11 to allow a pivot movement of the shelf device 30 from an orientation 42 parallel to the rear wall 15, as depicted in Figures 6 to 10, into an orientation 41 perpendicular or almost perpendicular to the rear wall 15, as depicted in Figures 1 to 5. An orientation 42 parallel

to the rear wall 15 is preferably chosen, when the waste container 10 is discharged. An orientation 41 perpendicular, which is particularly a 90 degree orientation, or almost perpendicular to the rear wall 15 is preferably chosen, when the shelf device 30 is ready or in use for picking up a waste portion 50 as depicted in Figure 4.

[0045] The shelf device 30 is arranged inside the container body 11 and therefore, inside the waste container 10. The shelf device 30 is adapted to pick up a waste portion 50, as evident from Figure 4, a waste bag for example, and then when coming with the next waste portion, drop the waste portion 50 stored on the shelf device 30 into the internal space 24 of container body 11 and place the next waste portion on the shelf device 30.

[0046] The shelf device 30 can be arranged in a way that it swings against the rear wall 15, as depicted in Figures 6 to 10 when the waste container 10 is discharged. Once the waste container 10 has been replaced on the ground after the discharge procedure has been finished, the shelf device 30 can swing into a position where it can pick up a waste portion again, as evident from Figures 1 to 5.

[0047] As evident from Figures 4 and 9 the shelf device 30 is arranged on the rear wall 15 in the area or vicinity of the ventilation apertures 23. In particular the shelf device 30 is mounted on the rear wall 15 by use of those ventilation apertures 23, for example via a clips connection or a screw connection.

[0048] It is preferred that the shelf device 30 is arranged on the rear wall 15 in the upper section 40 of rear wall 15. The upper section 40 can be the upper half or the upper third or the upper quarter of the rear wall 15 for example. The upper section 40 is defined from the container base 16 in direction of the upper edge 17 of the rear wall 15. Thus, it is easy to place a waste portion 50 on the shelf device 30, as evident from Figure 4. On the other hand, there is enough space for storing waste inside the waste container 10.

40 List of Reference Numerals

[0049]

- 10 Waste container
- 11 Container body
- 12 Front wall of the container body
- 13 Side wall of the container body
- 14 Side wall of the container body
- 15 Rear wall of the container body
- 16 Container base
- 17 Upper edge of the container body

18	Charging opening	15).
19	Container lid	3. The waste container according to claim 2, characterized in that the at least one shelf device (30) is
20	Hinge device	5 pivot mounted via a pivot axis (39).
21	Wheel	4. The waste container according to anyone of claims
22	Wheel	1 to 3, characterized in that at least one shelf device
23	Ventilation aperture	10 (30) is mounted on at least one container wall (12, 13, 14, 15) via a hinge device (38).
24	Internal space of the container body	5. The waste container according to anyone of claims
30	Shelf device	1 to 4, characterized in that at least one shelf device
31	Rod	15 (30) is pivot mounted on at least one container wall
32	Rod	(12, 13, 14, 15) to allow a pivot movement of the
33	Rod	20 shelf device (30) from an orientation (42) parallel to
34	Rod	the container wall (12, 13, 14, 15) into an orientation
35	Rod	25 (41) perpendicular or almost perpendicular to the
36	Rod	container wall (12, 13, 14, 15).
37	Rod	6. The waste container according to anyone of claims
38	Hinge device	1 to 5, characterized in that at least one shelf device
39	Pivot axis	(30) is mounted on at least one container wall (12,
40	Upper section	25 13, 14, 15) via a plug connection.
41	Orientation perpendicular to the container wall	7. The waste container according to anyone of claims
42	Orientation parallel to the container wall	1 to 6, characterized in that a fixing device is pro-
50	Waste portion	30 vided for fixation of the at least one shelf device (50)
		in at least one defined position.
		8. The waste container according to anyone of claims
		1 to 7, characterized in that at least one shelf device
		(30) is formed as an arrangement of rods (31, 32,
		33, 34, 35, 36, 37).
		9. The waste container according to any one of claims
		1 to 8, characterized in that the container body (11)
		comprises a rear wall (15), a front wall (12) and two
		side walls (13, 14) and that at least one shelf device
		(30) is arranged on the rear wall (15) and/or on at
		least one side wall (13, 14).
		10. The waste container according to anyone of claims
		1 to 89, characterized in that at least one container
		45 wall (12, 13, 14, 15) comprises at least one ventila-
		tion aperture (23) and that at least one shelf device
		(30) is arranged on the container wall (12, 13, 14,
		15) in the area or vicinity of the at least one ventilation
		aperture (23).
		11. The waste container according to anyone of claims
		1 to 10 characterized in that at least one shelf de-
		vice (30) is arranged on the at least one container
		55 wall (12, 13, 14, 15) in the upper section (40) thereof.
		12. The waste container according to anyone of claims
		1 to 11, characterized in that at least one shelf de-
		vice (30) is arranged on at least one container wall

Claims

1. A waste container (10), said waste container (10) comprising a container body (11) for picking up waste, said container body (11) comprising a container base (16) and at least one container wall (12, 13, 14, 15), **characterized in that** at least one shelf device (30) for temporary storage of a waste portion (50) is provided said at least one shelf device (30) being arranged inside the container body (11) on at least one container wall (12, 13, 14, 15).
2. The waste container according to claim 1, **characterized in that** at least one shelf device (30) is pivot mounted on at least one container wall (12, 13, 14,
3. The waste container according to claim 2, **characterized in that** the at least one shelf device (30) is pivot mounted via a pivot axis (39).
4. The waste container according to anyone of claims 1 to 3, **characterized in that** at least one shelf device (30) is mounted on at least one container wall (12, 13, 14, 15) via a hinge device (38).
5. The waste container according to anyone of claims 1 to 4, **characterized in that** at least one shelf device (30) is pivot mounted on at least one container wall (12, 13, 14, 15) to allow a pivot movement of the shelf device (30) from an orientation (42) parallel to the container wall (12, 13, 14, 15) into an orientation (41) perpendicular or almost perpendicular to the container wall (12, 13, 14, 15).
6. The waste container according to anyone of claims 1 to 5, **characterized in that** at least one shelf device (30) is mounted on at least one container wall (12, 13, 14, 15) via a plug connection.
7. The waste container according to anyone of claims 1 to 6, **characterized in that** a fixing device is provided for fixation of the at least one shelf device (50) in at least one defined position.
8. The waste container according to anyone of claims 1 to 7, **characterized in that** at least one shelf device (30) is formed as an arrangement of rods (31, 32, 33, 34, 35, 36, 37).
9. The waste container according to any one of claims 1 to 8, **characterized in that** the container body (11) comprises a rear wall (15), a front wall (12) and two side walls (13, 14) and that at least one shelf device (30) is arranged on the rear wall (15) and/or on at least one side wall (13, 14).
10. The waste container according to anyone of claims 1 to 89, **characterized in that** at least one container wall (12, 13, 14, 15) comprises at least one ventilation aperture (23) and that at least one shelf device (30) is arranged on the container wall (12, 13, 14, 15) in the area or vicinity of the at least one ventilation aperture (23).
11. The waste container according to anyone of claims 1 to 10 **characterized in that** at least one shelf device (30) is arranged on the at least one container wall (12, 13, 14, 15) in the upper section (40) thereof.
12. The waste container according to anyone of claims 1 to 11, **characterized in that** at least one shelf device (30) is arranged on at least one container wall

(12, 13, 14, 15) via a clips connection and/or a clamp connection and/or a screw connection and/or a bolt connection and/or a rivet connection.

13. The waste container according to anyone of claims 1 to 12, **characterized in that** at least one shelf device (30) is made of a metal material or a plastic material. 5
14. The waste container according to anyone of claims 1 to 13, **characterized in that** the waste container (10) comprises a container lid (19) for closing the container body (11). 10

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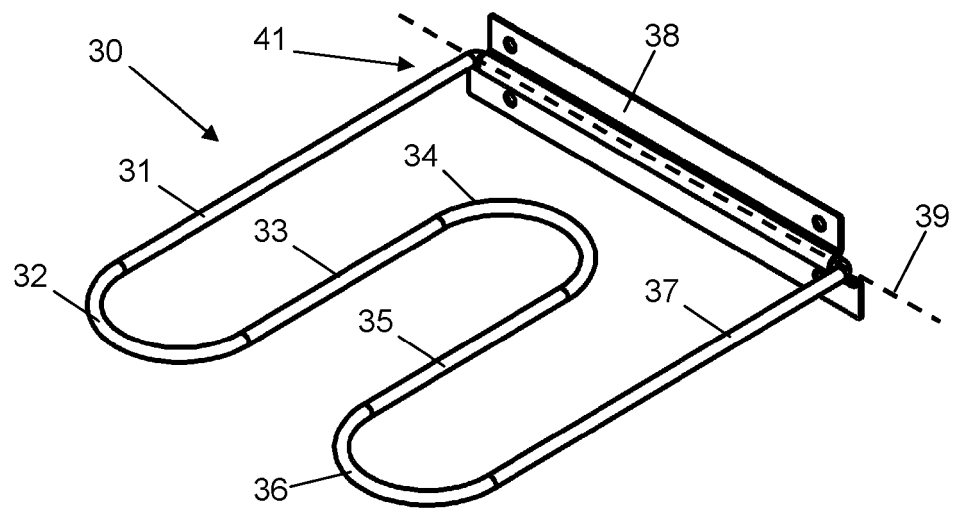


Fig. 1

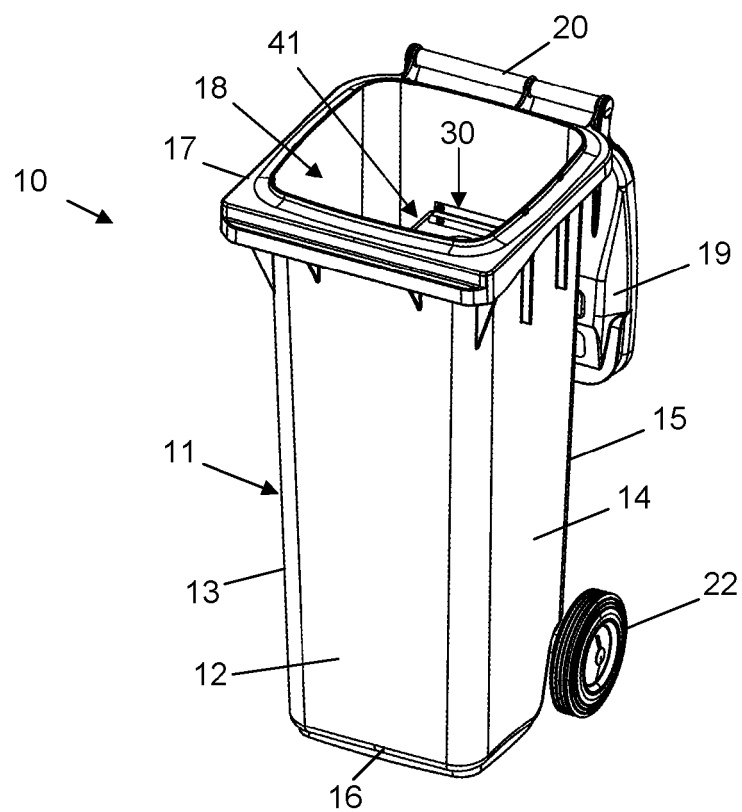


Fig. 2

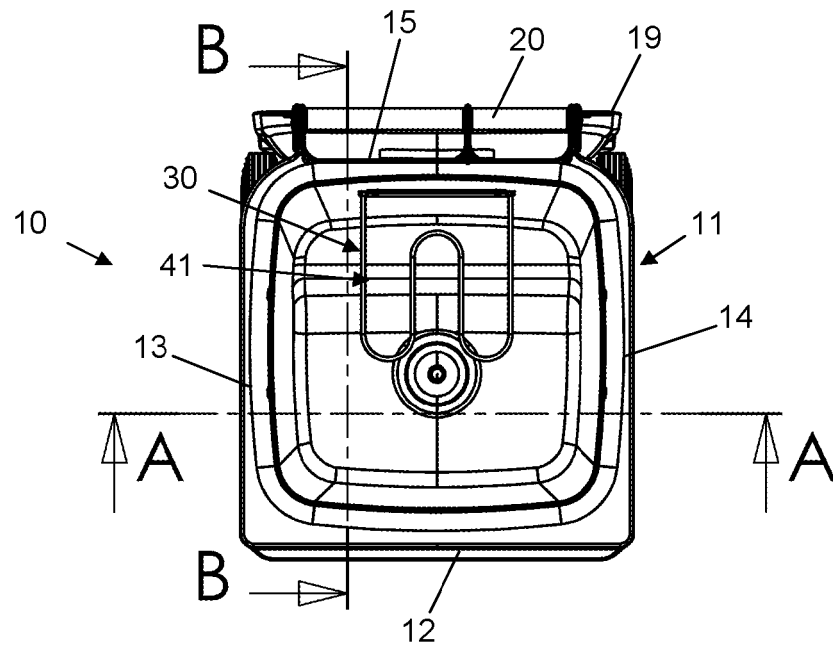


Fig. 3

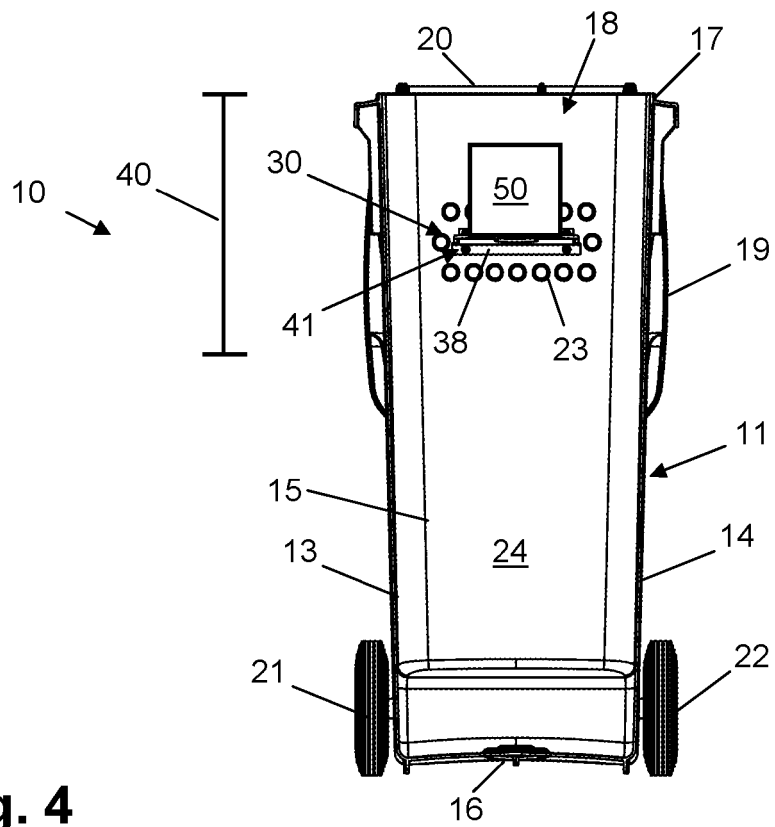


Fig. 4

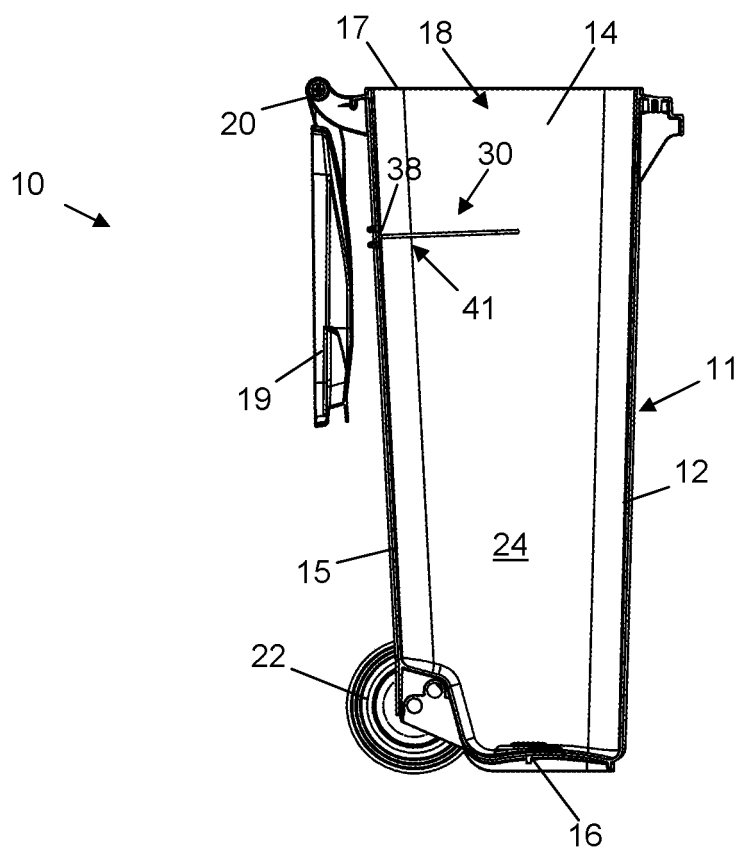


Fig. 5

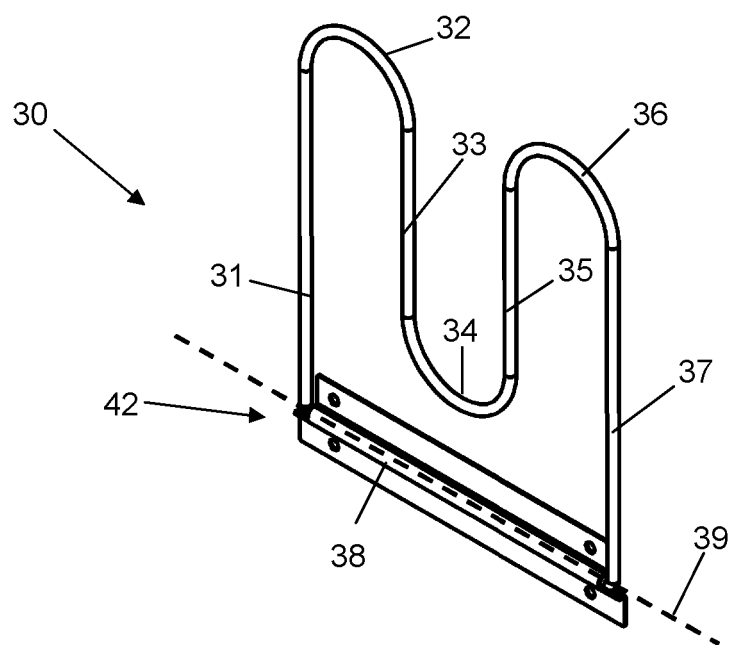


Fig. 6

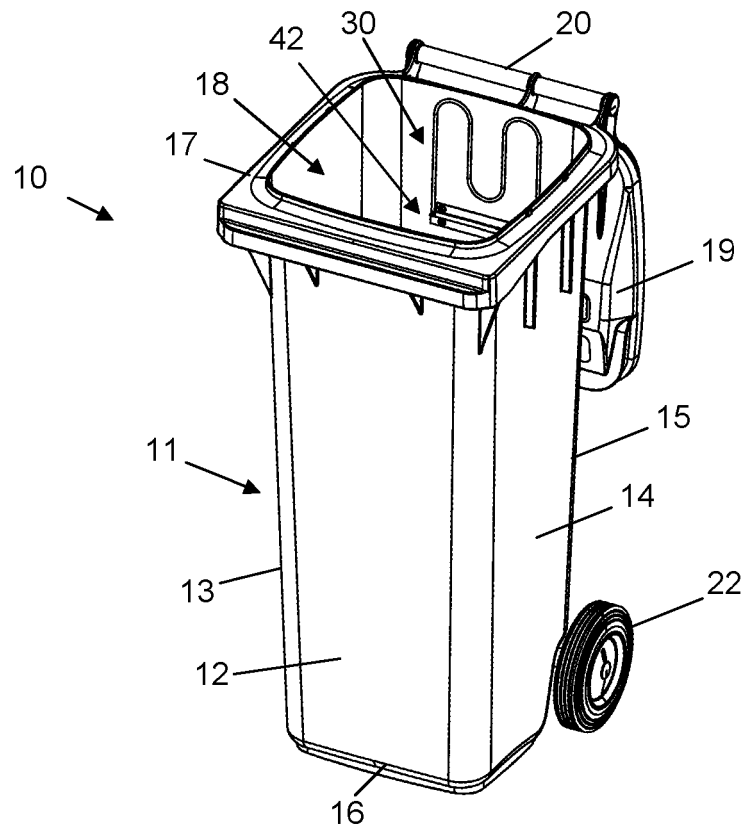


Fig. 7

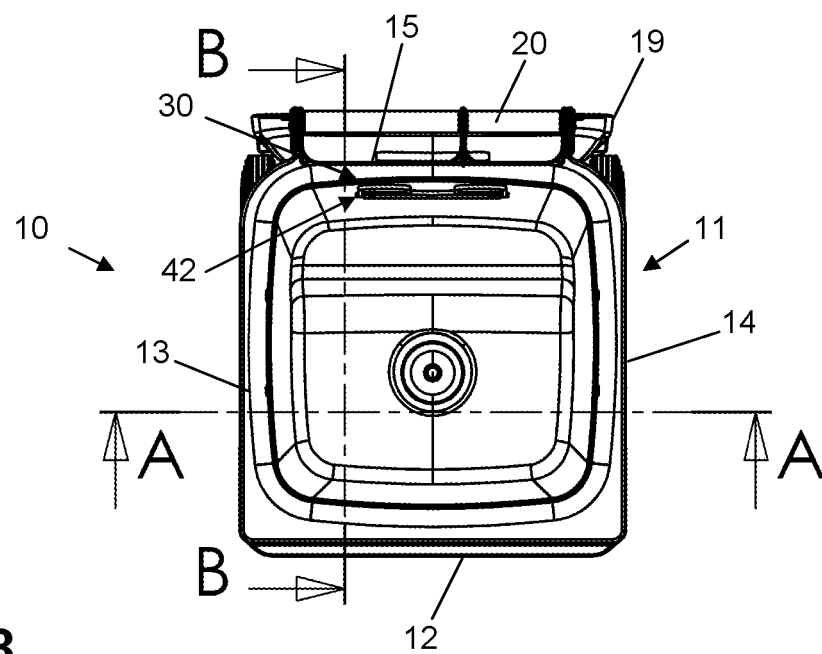


Fig. 8

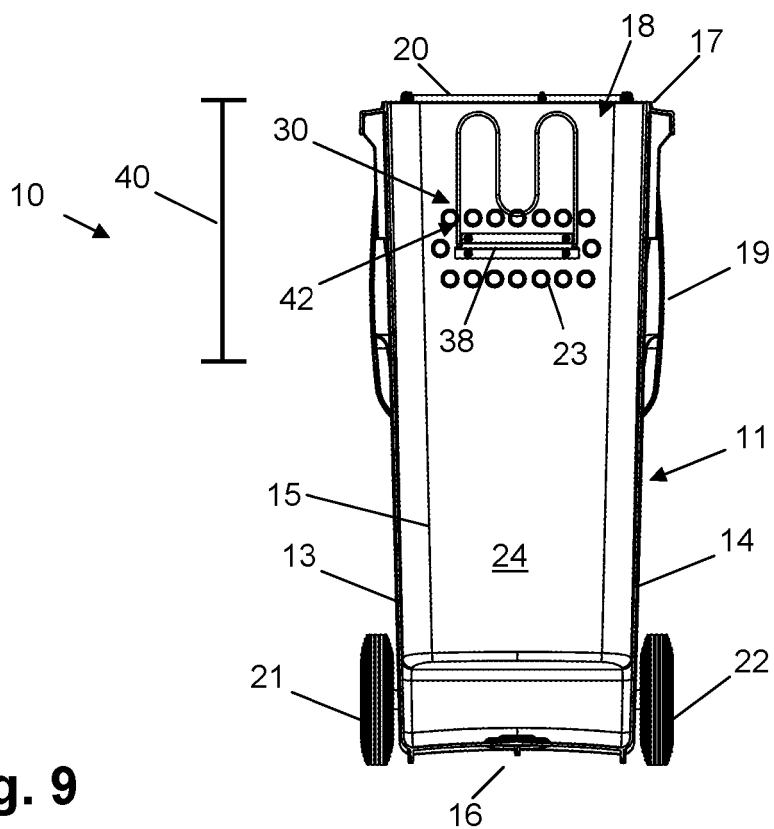


Fig. 9

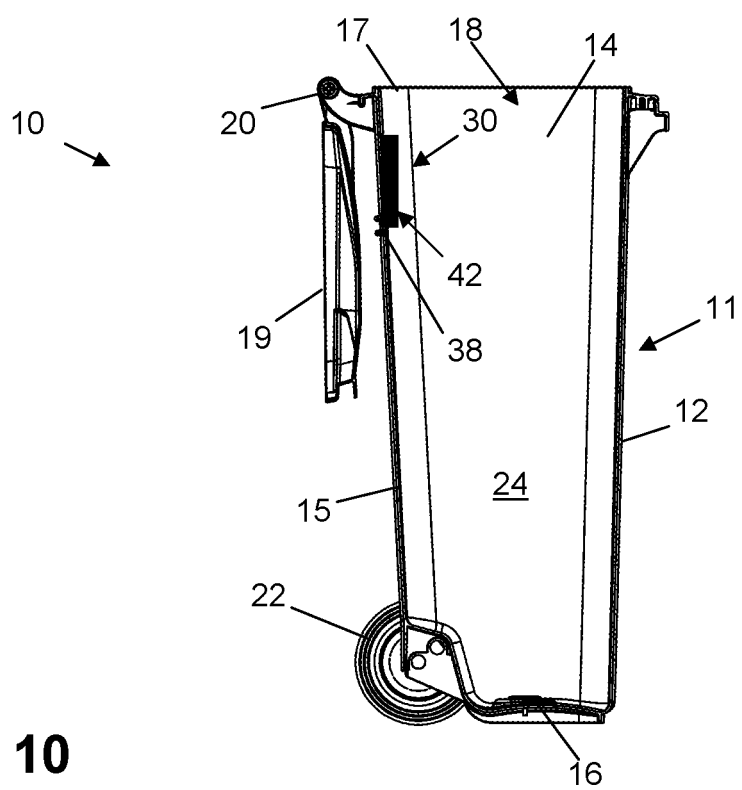


Fig. 10



EUROPEAN SEARCH REPORT

Application Number
EP 11 17 4718

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 A	US 5 899 468 A (W. APPS ET AL.) 4 May 1999 (1999-05-04) * column 2, line 26 - column 3, line 25 * * figures 1-4 * -----	1-7,9, 10,12-14 8,11	INV. B65F1/14
X A	US 5 205 433 A (B. BITSCH) 27 April 1993 (1993-04-27) * column 2, line 40 - column 3, line 42 * * figures 1,2 * -----	1-10, 12-14 11	
X A	EP 0 386 568 A1 (FRITZ SCHÄFER GMBH) 12 September 1990 (1990-09-12) * column 5, line 44 - column 7, line 42 * * figures 1,2 * -----	1-10, 12-14 11	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 5 October 2011	Examiner Smolders, Rob
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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EPO FORM 1503 03.82 (P04C01)

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

EP 11 17 4718

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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05-10-2011

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