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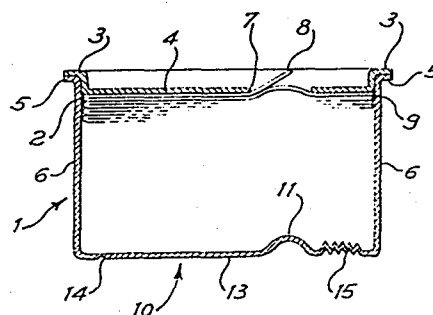
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(54) Container-dispenser of sanitary towels.

(57) The present invention concerns a container-dispenser of sanitary towels, particularly suitable to be used with towels of the type imbued with disinfectant deodorizing and/or detergent substances. The container-dispenser according to the invention is characterized by the fact of comprising a fence in correspondence to the wall near the first towel of the pile and means to push the pile against said wall, substantially acting on the part of the pile which is aligned with the fence and by the fact that each towel is folded with its edges offset to each other so that one edge is in correspondence to the fence and the other edge is held by the fence itself.

Main advantages of the container-dispenser according to the invention are to allow easy and safe removal of the towels and to limit to the utmost evaporation of the volatile substances contained in the damp towels.



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1 The present invention concerns a container-dispenser of sanitary towels, particularly suitable to be used with towels of the type imbued with disinfectant deodorizing and/or detergent substances.

Containers-dispensers of damp sanitary towels tied to one another and forming ——— all together a roll are known. These containers-dispensers

5 are provided with a dispensing hole which can be airtightly closed and provided with rims thanks to which the free end of the roll is held in correspondence to the hole itself so as to allow to clutch it. Said containers-dispensers present the inconvenience of not offering an always

10 easy delivery, in that the detachment of the towels from the roll does not always take place easily and moreover, frequently, the free end of the roll is not held by the rims of the dispensing hole; in the latter case it is necessary to open the container and repeat the initial operation of inserting the free end of the roll into the dispensing hole.

15 Finally, the volume of said containers-dispensers remains constant while the roll decreases, and the last towels tend to dry having at their disposal an excessive air volume which is, moreover, renewed any time the ^{lid} of the dispensing hole is opened.

Containers of piles of damp towels, which can be hung on the walls and provided with an airtight lid for towel removal are also known. Said
20 containers present the inconvenience of not being equipped with any dispensing means for the towels, which, at the same time, can insulate the towels from the external ambient.

In fact, any time it is necessary to lift the lid and take a towel,
25 the whole pile of towels is totally exposed to the external ambient and new air is introduced into the container with subsequent partial evaporation of the volatile substances contained in the towels.

The aim of the present invention is to propose a container-dispenser which allows easy and safe removal of the towels preventing at
30 the same time that the removal of a towel involves the contact

1 of the towel pile with the external ambient as well as the introduction
of new air into the container. Another aim of the invention is to
propose a container-dispenser which allows to reduce to the utmost and to
keep constant the air volume at the disposal of the towels while the
amount of towels present in the container decreases.

5 Another aim of the invention is to propose a container
extremely simple and cheap to be manufactured, and the cost of which
only represents a small portion of the cost of the towels, so as to
allow its sale as item to be thrown away once the towels are run out.

10 These aims are achieved by means of a container-dispenser of piled sanitary
towels characterized by the fact of comprising a dispensing fence for the
towels in correspondence to the wall near the first towel of the pile and
means to push the towels against said wall substantially aligned with the
fence, and wherein each towel is folded with its edges offset to each other
15 so that an edge is in correspondence to the fence and the other edge is
held by the rim of the fence itself.

The container-dispenser according to the present invention is particularly
suitable to be used with sanitary towels of the type imbued with disinfectant
deodorizing and/or detergent substances and, in this case, said fence is
20 airtightly closed by means of a snap lid hinged to the container-dispenser
itself.

The removal of the towels from the container is facilitated in that
the wall opposite to the fence is provided with a prominence protruding
towards the outside of the container and aligned with the fence. In one
25 of the embodiments of the container according to the invention, a portion
of the bottom wall is movable and airtightly fixed to the fixed wall of
the container by means of bellows.

When the container is used ^{with} damp towels, in order to limit to the
utmost the presence of air inside the container-dispenser and to prevent
30 the exchange of said air any time a towel is removed, the pile of towels -

1 is constantly pressed against the dispensing wall.

For this purpose the side walls are constituted by bellows and the whole bottom wall is movable and pushed against the dispensing wall by the action of a spring. In this way the first towel of the pile adheres to the fence preventing air from entering into the container-dispenser
5 when the lid is opened and the air quantity present in the container remains constant as the towels are removed.

Other characteristics of the container-dispenser according to the invention will be now better described with reference to the attached drawing where:

- 10 - figure 1 is a side cross view of a first embodiment of the container-dispenser;
- figure 2 is a side cross view of a second embodiment of the container-dispenser, particularly suitable for the use with damp towels;
15 - figure 3 is a side cross view of a third embodiment of the container-dispenser, particularly suitable for the use with damp towels;
- figure 4 is a front view of the container-dispenser of figure 3.

Referring to figure 1, the container-dispenser is constituted by a rigid envelope 1, for example made in molded plastic material, inside which a pile of sanitary towels 2 is placed. The edges 3 of the upper wall
20 4 of the container are bent upwards and towards outside and are soldered to the edges 5 bent towards outside of the side walls 6. The upper wall 4 moreover, presents a fence 7 for towel dispensing, parallel to one of the sides of the container. The towels 2 are folded so as to present two
25 edges 8,9 offset to each other and are piled in the container so that each towel has the shorter edge 8 above the longer edge 9. The fence 7 for towel removal is ----- positioned on the upper wall 4 of the container so that the shorter edge 8 of the towel to be removed is free to protrude from the fence and the longer edge 9 is held by the rim of the fence itself.
30 In order to facilitate the removal of the towels from the container, the

1 bottom wall 10 presents a prominence 11 aligned with the fence 7. The
prominence 11 acts on the towel pile so that the towel near the upper
wall 4 of the container protrudes from the fence 7 and the shorter edge 8
of same can be easily clutched. To make the prominence 11 act in the
5 desired way also when the container only contains few towels, all or a
portion of the bottom wall 10 of the container is movable. In the embodi-
ment of figure 1, the bottom wall 10 houses a bellows small door hinged or
fixed to the wall itself in correspondence to its side 14
parallel and farther away from the fence 7, the other sides being airtightly
10 connected to the container by means of bellows 15.

The containers illustrated in figures 2-4 are particularly suitable
to be used with sanitary towels of the type imbued with deodorizing,
disinfectant and/or detergent substances and are different from the con-
tainer of fig. 1 in that they comprise a lid 16 to airtightly close the
15 fence 7 and ~~they represent~~ in that their side walls 6 are bellows-shaped.

Referring to figure 2, the lid 16 is formed by a shaped small lamina
having an end 17 soldered to the container edge parallel and farther
away from the fence 7 and the opposite end 18 suitable to be snapped with
the corresponding edge of the container. A notch 19 forms a hinge suitable
20 to allow rotation of the lid.

The bellows-shaped side walls of the containers illustrated in figures
2 and 4, besides allowing the prominence 11 to act even when few towels
remain in the container, also allow to maintain constant the air volume at
the disposal of the towels as they are removed. For this purpose, elastic
25 means (figure 4) can be foreseen, for instance consisting of one or more
springs 20 positioned in correspondence to the side walls 6 of the container,
which exercise a pushing action on the bottom wall 10 so that the first
towel of the pile is kept constantly pressed against the upper wall. In
this way the fence is kept closed by the pile of towels and at each removal
30 no — air is introduced into the container. Figure 3 illustrates a con-

1 tainer similar to that illustrated in figure 2, except for the fact that
a portion of the bottom wall is movable as in the container of figure 1.

This embodiment is particularly suitable when the container contains a
high number of towels and the door of the bottom wall allows to make
protrude even the last towels from the fence, by means of the prominence
5 11, when the bellows are packed.

Several other embodiments of the container can be foreseen, for instance
instead of the bellows-shaped side walls and of the movable bottom wall,
the towel pile can be pushed against the upper wall of the container by means
of a plate parallel to the bottom wall, suitable to glide along the side
10 walls of the envelope and pushed by the action of a spring placed between
the plate itself and the bottom wall. A rib obtained on the plate in
correspondence to the fence presses the towel pile so that the edge of
the first towel free from the fence can protrude from the container.

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C L A I M S

- 1 1. Container dispenser of piled sanitary towels, characterized by the fact
of comprising a fence to remove the towels placed in correspondence
to the wall near the first towel of the pile, and means suitable for
pushing the pile of towels against the fence substantially aligned with
the fence itself and wherein each towel is folded with its edges offset
5 to each other so that an edge is in correspondence to the fence and the
other edge is held by the rim of the fence itself.
2. Container-dispenser of piled sanitary towels according to claim 1,
wherein the sanitary towels are imbued with a disinfectant deodorizing
and/or detergent substance and wherein the fence to remove the towels
10 can be airtightly closed by means of a snap lid hinged to the container-
dispenser itself.
3. Container-dispenser of piled sanitary towels according to claim 1 or 2,
wherein said means suitable to push the pile of towels against the fence
15 are constituted by a prominence on the bottom wall, in correspondence
to the fence.
4. Container-dispenser of piled sanitary towels according to claim 1, 2 or 3,
wherein at least a portion of the bottom wall is movable and airtightly
fixed to the fixed wall of the container by means of bellows.
- 20 5. Container-dispenser of piled sanitary towels according to claim 4,
wherein the bottom wall presents a door hinged to the wall itself in
correspondence to its side farther away and parallel to the fence,
its other sides being connected to the bottom wall by means of bellows.
6. Container-dispenser of piled sanitary towels according to claim 5,
25 wherein the side walls of the container are bellows.
7. Container-dispenser of piled sanitary towels according to claim 6,
wherein the bottom wall is elastically pushed against the top wall
from which towels are removed.
8. Container-dispenser of piled sanitary towels according to claim 7,
30 wherein said elastic pushing action against the bottom wall

1 is exercised by the action of one or more springs placed in correspondence
to the side walls.

9. Container-dispenser of piled sanitary towels according to claim 5,
wherein between the bottom wall and the last towel a plate is placed
suitable to glide along the side walls, stressed by the action of one
5 or more springs and provided with a prominence on its surface in contact
with the towel pile, said prominence being aligned with the face from
which the towels are removed.

10. Container-dispenser of piled sanitary towels according to any of the
preceding claims, characterized by the fact of being made of molded
10 plastic material.

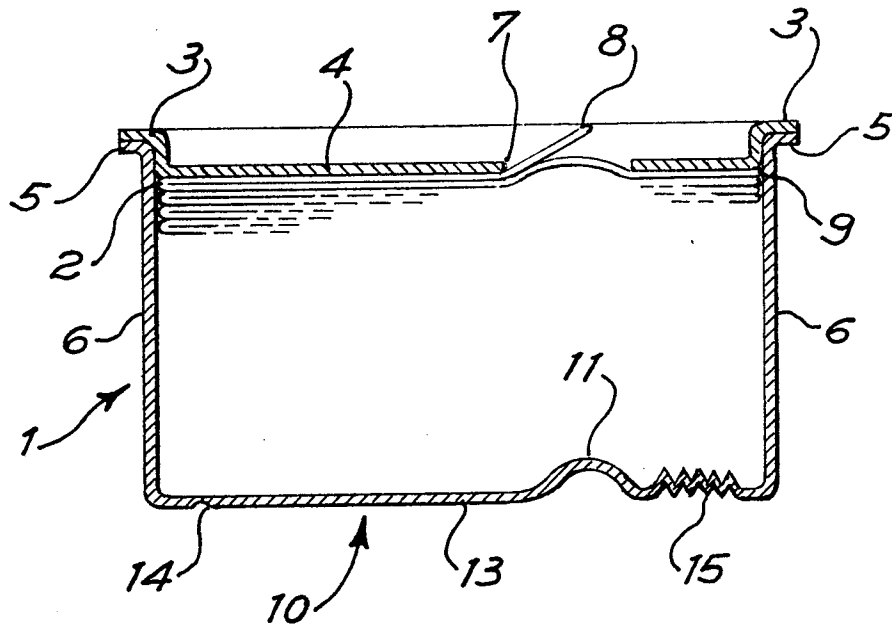
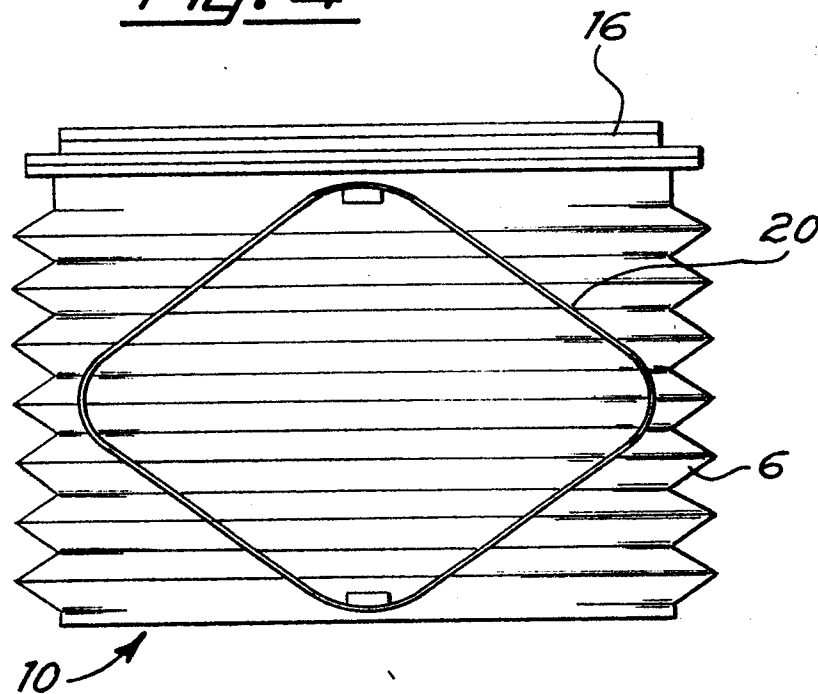
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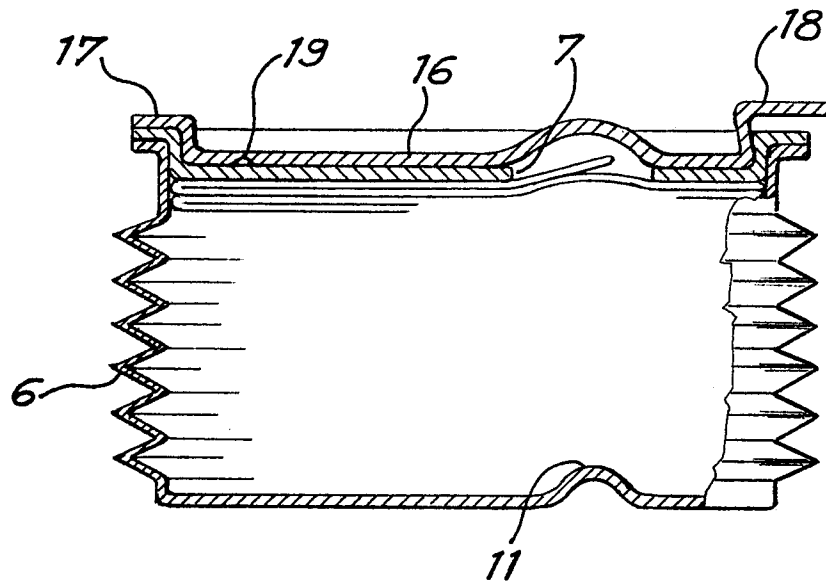
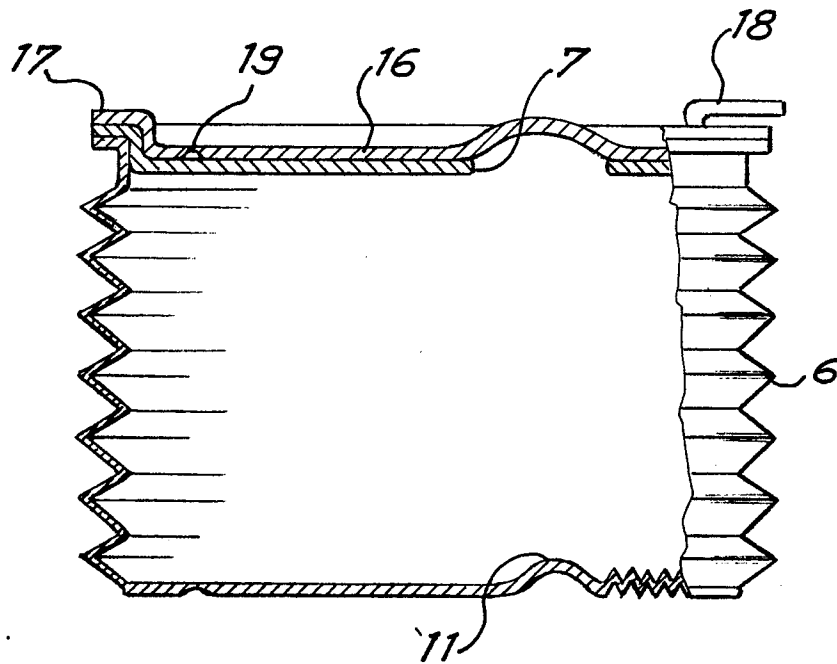
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Fig. 1Fig. 4

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Fig. 2Fig. 3

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EUROPEAN SEARCH REPORT

Application number

EP 84 10 5096

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
X	CA-A- 955 903 (McKAY) * page 4, line 5 - page 5, line 16; figures *	1	B 65 D 83/08
X	--- US-A-3 425 595 (SHAPIRA) * the entire document *	1, 10	
Y		2, 3, 9	
Y	--- DE-A-2 437 108 (GERSTEIN) * page 6, line 18 - page 7, line 11; page 8, line 25 - page 9, line 12; figures *	2	
Y	--- US-A-2 849 152 (TUTTLE) * column 2, line 40 - column 3, line 17; column 4, line 68 - column 6, line 31; figures *	3	TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
Y	--- GB-A-1 461 410 (IMPERIAL CHEMICAL INDUSTRIES) * page 2, line 23 - page 3, line 7; figures *	3, 9	B 65 D A 47 K
A	--- US-A-4 136 802 (MASCIA) * the entire document *	6, 7, 8	
A	--- DE-A-2 429 626 (STÜBBE ARMATUREN) --- -/-		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-09-1984	Examiner MARTENS L.G.R.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>& : member of the same patent family, corresponding document</p>			



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Page 2

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 7)
A	FR-A-2 504 095 (LECHTZIER)		
A	FR-A-1 451 668 (IMPRIMERIES OBERTHUR)		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl. 7)
Place of search THE HAGUE		Date of completion of the search 06-09-1984	Examiner MARTENS L.G.R.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			