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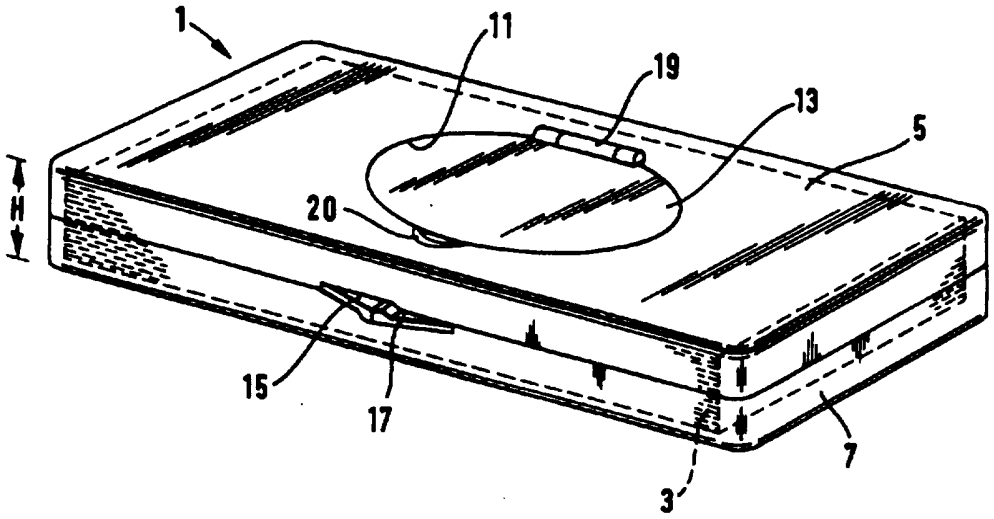
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(54) Title: CONTAINER FOR MOIST WIPES



(57) Abstract

The invention relates to a container (1) of a relatively rigid material for containing a stack of moist wipes (3), the container having a bottom part (7) and an upper part (5), the parts being mutually connected by a hinge (9), the upper and the lower part being adapted for containing the moist wipes. The combined height of the upper and lower part is not higher than 5 cm, preferably not higher than 2.5 cm, the upper part comprising a dispensing aperture (11) and a lid (13) covering the dispensing aperture, the lid being hingingly connected to the upper part of the container.

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CONTAINER FOR MOIST WIPES

Field of the Invention

The invention relates to a container of a relatively rigid material for containing a stack of moist wipes, the container having a bottom part and an upper part, the parts being mutually connected by a hinge, the upper and the lower part being adapted for containing the moist wipes.

Background of the invention

EP-A-0 247 031 discloses a flexible pack containing a stack of wet tissues. The pack comprises a relatively small dispensing aperture and an adhesive tab for sealingly closing the dispensing aperture.

FR-A2 376 802 discloses a flexible pack comprising a stack of wet tissues, and a storage container. After removal of a label from the pre-formed dispensing aperture in the pack, the opened pack is placed inside the container. The container comprises a hinging cover.

US-A-4,244,493 discloses a cylindrical container for storing a roll of wet towels, comprising a cover and a dispensing device comprising a slit and a hole therein.

European Patent Application number 94107012.0, filed on May 05,1994 in the name of The Procter & Gamble Company, discloses a container for containing a stack of wet wipes, the container comprising a tub having a lower part, and an upper part hingingly connected thereto. The upper part comprises a dispensing aperture which is covered by a hinging lid.

The known flexible packs are easily transported by the user, but have as a disadvantage that the packs can be squeezed in the luggage of the user. This may cause moisture to leak from the pack. Also, upon prolonged use, the adhesive closure of the flexible pack may be reduced such that drying out of the contents may occur. Furthermore, the opening and dispensing operation of a wipe from a flexible pack is relatively elaborate and requires two hands.

Rigid containers have the advantage that they can be transported without the contents being squeezed out. The sealing closure of the rigid containers is also relatively vapour-tight, such that the moist tissues may be stored over a relatively long period of time in such containers. The disadvantage is that the rigid containers are relatively bulky and therefore not easily transported.

It is also known to transport moist wipes in relatively flat, rigid containers. The wipes can be placed inside the container by hingingly separating two halves of the container. Such containers are often difficult to open. In the open position, the whole contents of the container are exposed. This may result in the contents of the container being spilled upon opening or becoming soiled.

Furthermore, when these flat containers are filled above the peripheral edge of the lower half, an increased risk of spilling its contents upon dispensing of tissue is present. Also will the wipes which extend above the peripheral edge of the lower half, tend to get caught between the halves of the container upon closing the halves back together.

It is an object of the present invention, to provide a container for moist tissues, which can be easily transported, and from which the wipes may be easily dispensed.

It is another object of the invention to provide a container for moist tissues, which can be completely filled, and which can be easily opened for dispensing without the danger of spilling its contents or wipes getting caught in the lid.

It is another object of the invention to provide a container for moist tissues which allows one-handed dispensing of the wipes.

It is a further object of the invention to provide a container for moist tissues from which moist tissues may be more easily dispensed without the tissues clinging together.

Summary of the Invention

A container according to the present invention comprises a bottom part and an upper part, the parts being mutually connected by a hinge. The combined height of the upper and lower part is not higher than 5 cm, preferably not higher than 2.5 cm. The upper part comprises a dispensing aperture and a lid covering the dispensing aperture, the lid being hingingly connected to the upper part of the container.

The relatively flat container can be easily transported because of its low bulk. Because the container is made of relatively rigid material, the container can withstand the compressive forces normally occurring upon transportation of the container in the user's luggage. By providing the extra dispensing lid on the container, the refill operation of placing the wipes inside the container and the dispensing operation, are separated. Once the container is filled, the two halves can be firmly closed, in a single closing operation. Thereafter, the wipes can be taken from the container without the risk of spilling or soiling the wipes on dispensing.

The use of an extra dispensing aperture in the top of the relatively flat container, allows the container to be completely filled without negatively affecting the ease of use of the container. As the container halves remain closed after a single refilling of the container, the problem of the wipes getting caught between the container halves upon dispensing, is solved.

In one embodiment of a container according to the invention, the size of the dispensing aperture measures 10 x 6 cm. A preferred dispensing aperture is elliptical, the axes being about 10 x 6 cm in length. This relatively large sized dispensing aperture allows the user to easily open the container and one-handedly dispense a single moist tissue from the container. The dispensing aperture is optimised in size to allow the user to

easily reach into the container, and provides a restrictive orifice for frictionally engaging the wipes upon dispensing, thus causing the wipes to unfold.

In another embodiment according to the invention, the upper and the lower parts of the container are integral. It is advantageous to form the upper and the lower part in a single injection moulding operation, the hinge material and the material of the upper and lower halves forming one piece. In a preferred embodiment, the upper and lower container parts have the same height.

Such containers normally tend to be relatively difficult to open, and will not stay open properly due to the resilient spring-back forces exerted by the one-piece hinge. Hence such constructions would normally be regarded as less suitable to contain wet wipes, as the dispensing of the wipes from such containers is impaired. In the present invention, this negative is overcome by the provision of an extra dispensing aperture in the top halve of the container such that the container halves only need to be separated for placing a stack of wet wipes inside the container. Upon dispensing, the container halves can stay closed.

Brief description of the drawings

The present invention will explained in detail with reference to the accompanying drawings. In the drawings:

Figures 1 - 3 show a perspective view of a container according to the invention in the storage position, the refill position and the dispensing position, respectively,

Figures 4 - 6 show an embodiment of a container according to the invention wherein the upper part, the lower part and the lid are integral,

Figure 7 shows the container of figures 4 - 6 in a flattened position, and

Figure 8 shows a cross-sectional view of an insert part carrying the lid, connected to the dispensing aperture.

Detailed Description of the Invention

Figure 1 shows a container 1 according to the invention in its closed state. The container 1 has a height, H, which is between 2 cm and 5 cm. The container is filled substantially along its height H with wet wipes 3. The wipes 3 are stacked in an interleaved or non-interleaved array and are saturated with moisture. The moisture contents of a single wipe may for instance be about 2.5 - 3 times the weight of the wipe in its dry state. A preferred lotion comprises about 95 % water and may further comprise skin care agents, perfume and cleaning agents. The upper part 5 of the container is connected to the lower part 7 via a hinge 9. The upper and lower parts may be separately formed parts, or may form, together with the hinge 9, a single, integral structure. The container 1 is made of relatively rigid material, such as polyethylene or a polypropylene copolymer of a thickness of between 0.5 and 0.8 mm.

The term "relatively rigid" is intended to mean containers which are not made of sheet material, such as the known flexible wrappers and which do not substantially deform upon handling.

The container 1 comprises two finger grips 15, 17 attached to the upper part 5 and lower part 7 respectively. The container can be opened for placing the wet wipes inside by moving the finger grips 15 and 17 apart, as shown in figure 2.

The upper part 5 comprises a dispensing aperture 11 covered by a hinging lid 13. The hinging lid 13 may be connected to the upper part 5 via a hinge 19. Preferably the lid 13 is flush with the top surface of the upper part, and is accessible via a finger lift part 20 in the top surface of upper part 5. Upon dispensing of a tissue from the container 1, the upper and lower halves 5,7 remain closed, only the lid 13 being opened. Preferably, the dimensions of the dispensing aperture 11 are between about 10 x 6 cm, such that a user can easily reach inside the container 1, and can also access the bottom most wipes. On the other hand, the dispensing aperture 11 is small enough to provide a restriction which causes the wipes to

unfold when they pass through the aperture by frictionally engaging the wipes. This will help to dispense only a single wipe at a time.

Proper frictional engagement of the dispensing aperture 11 with the wipes is especially important for wipes of a caliper of about 0.6 mm and a basis weight of about 60 g/m^2. Thinner wipes, for instance of a caliper of about 0.2 mm, will more easily unfold upon dispensing.

Figure 4 shows an alternative embodiment of a container according to the invention. In this case, the lid 13 is integrally formed with the upper part 5, and is connected to the upper part along a webbed hinge 19. The hinge line 19 is located on the opposite side of the hinge 9 of the upper and lower parts 5,7 as can be seen in figure 5. Hence the lid 13 hinges in a different direction than the upper part 5, such that there is no risk of separating the upper and lower parts 5,7 upon opening of the lid 13.

Figure 6 shows the container 1 in a dispensing configuration. The dispensing aperture 11 extends across the full width of the upper half 5 for easy access to the wipes, but is of relatively narrow dimensions to form a restrictive aperture for unfolding of the wipes.

Figure 7 shows a top plan view of the container of figures 4-6, in a flattened , two-dimensional state. The container 1 is formed from a single injection moulded piece. The webbed hinges 9 and 19 respectively connect the upper and lower parts 5,7 and the upper part 5 and the lid 13.

Figure 8 shows a cross-sectional view of an embodiment wherein the upper part 5 of the container comprises a recessed section to which an insert part 21 is connected. The insert part 21 comprises the hinge 19 and the lid 13.

Preferably, the container 1 is made of polypropylene, but other materials such as polyethylene can be used.

WHAT IS CLAIMED IS:

1. Container of a relatively rigid material for containing a stack of moist wipes, the container having a bottom part and an upper part, the parts being mutually connected by a hinge, the upper and the lower part being adapted for containing the moist wipes,

characterised in that the combined height of the upper and lower part is not higher than 5 cm, preferably not higher than 2.5 cm, the upper part comprising a dispensing aperture and a lid covering the dispensing aperture, the lid being hingingly connected to the upper part of the container.

2. Container according to claim 2, wherein the size of the dispensing aperture is between 30 cm^2 and 90 cm^2, preferably between 40 cm^2 and 80 cm^2.

3. Container according to claim 1 or 2, the upper part, the lower part and the lid being integral.

4. Container according to claim 3, wherein the lid is integral with the upper and lower parts.

5. Container according to any of the previous claims, wherein the upper part and the lower part are substantially of the same height.

6. Container according to any of the previous claims, wherein the surface of the lid is substantially flush with the surface of the upper part.

7. Container according to any of the previous claims, wherein the hinge of the upper and lower part is located on a side of the container which is opposite to the side where the hinge of the lid is located, the hinging direction of the upper part with respect to the lower part being opposite to the hinging direction of the lid with respect to the upper part.

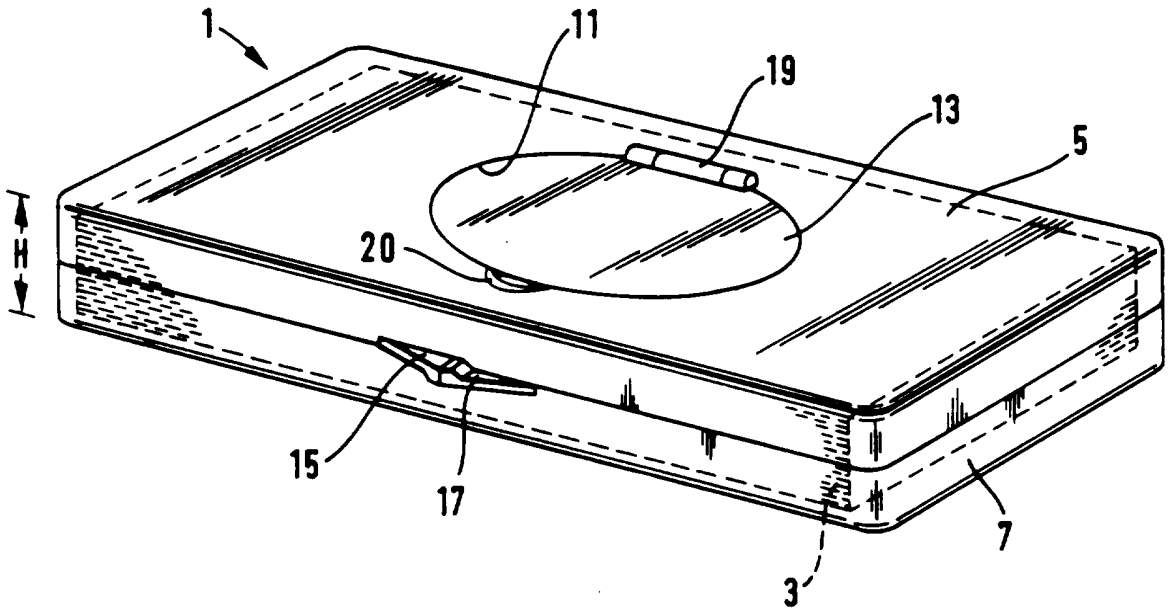


Fig. 1

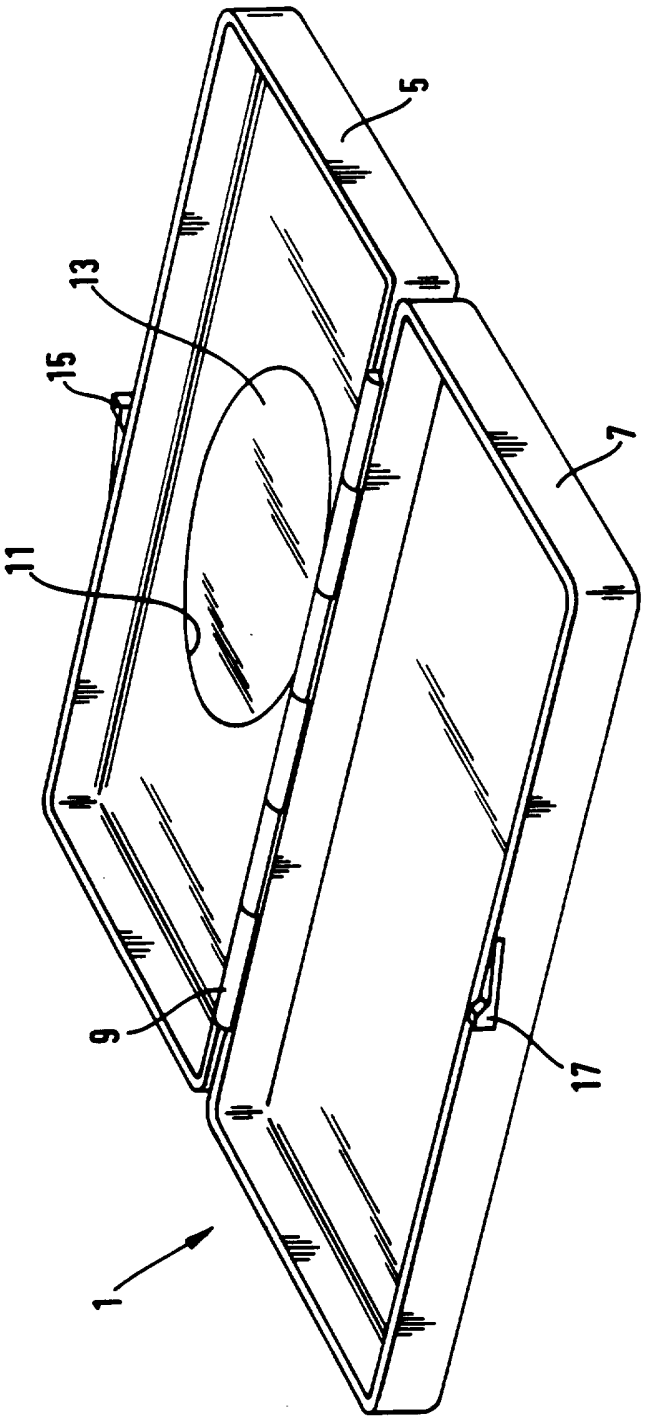


Fig. 2

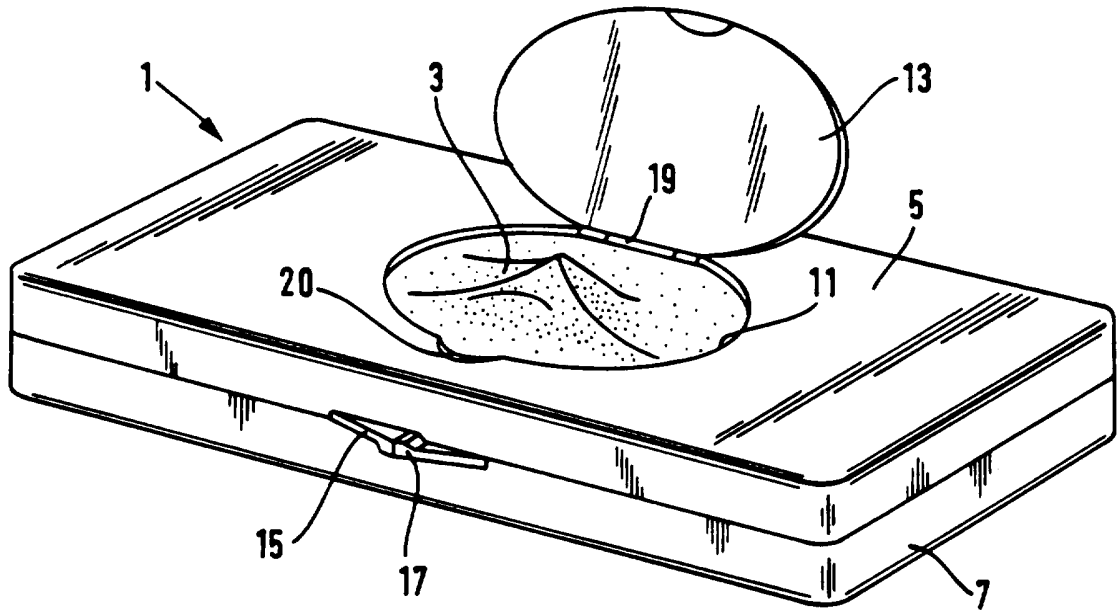


Fig. 3

Fig. 4

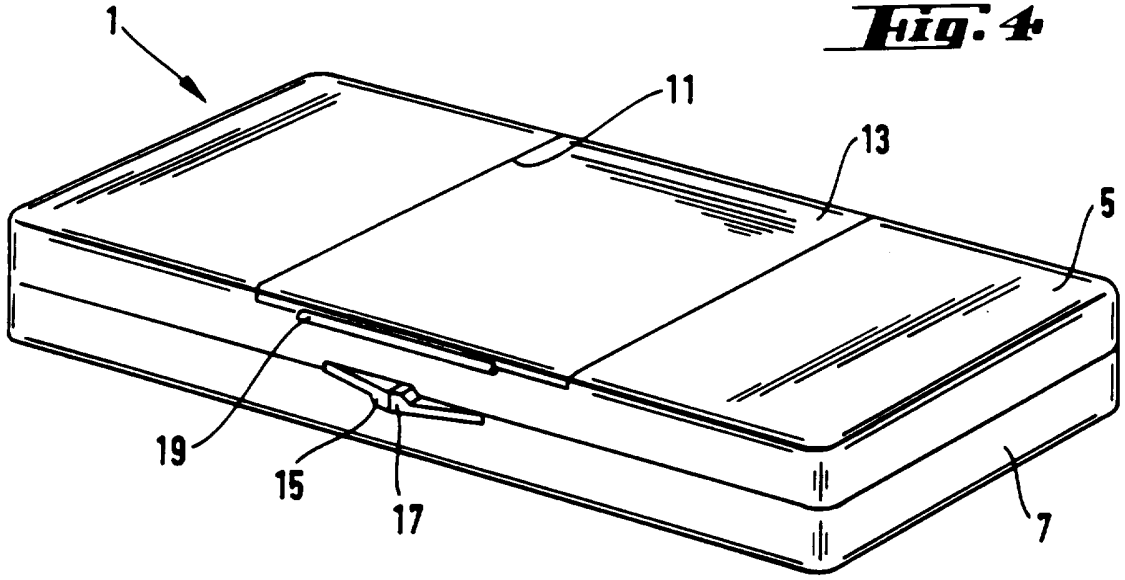
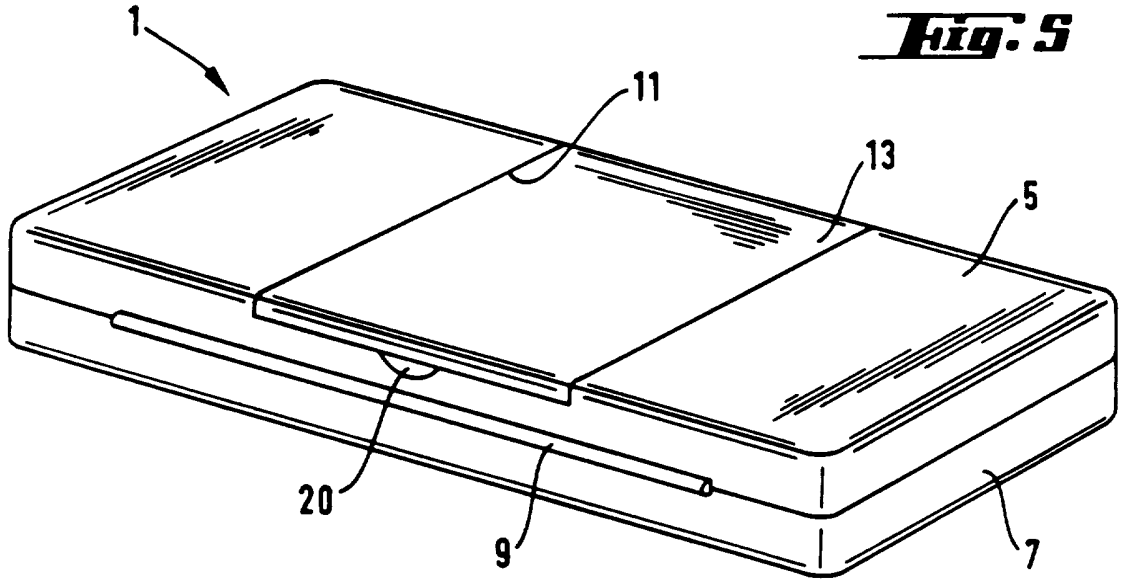


Fig. 5



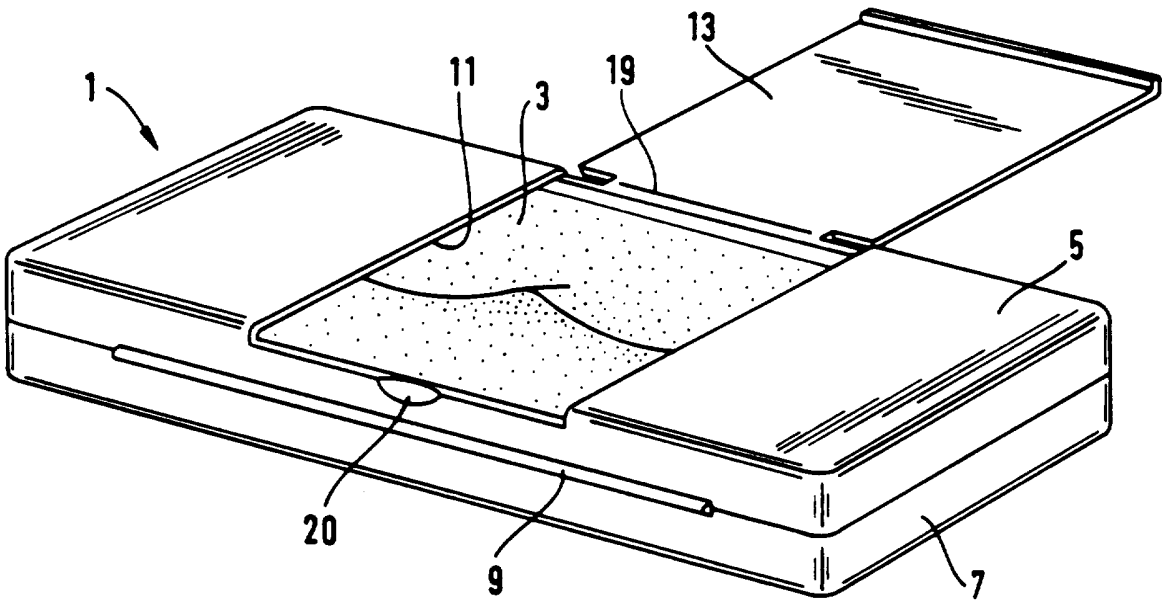


Fig. 6

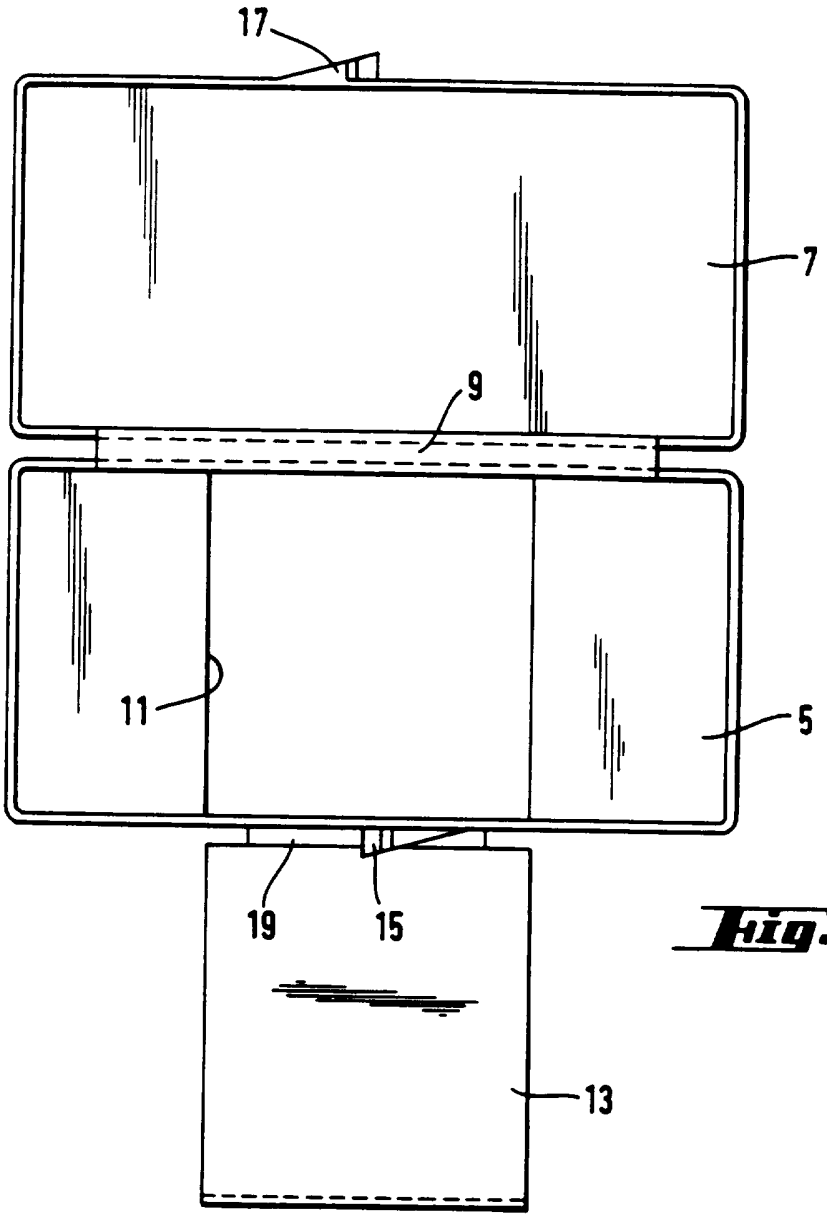


Fig. 7

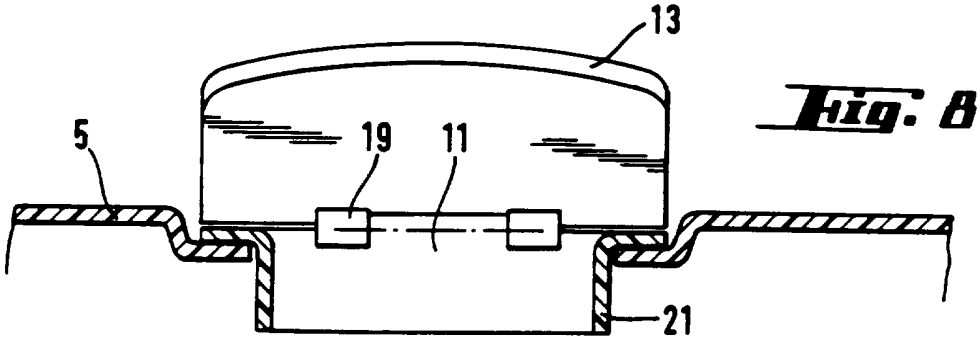


Fig. 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/04351

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :B65D 85/62
US CL :206/494, 812; 220/254
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)

U.S. : 206/494, 440, 449, 812; 220/254, 4.21, 4.22, 4.23

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NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US, A, 5,040,680 (WILSON ET AL.) 20 AUGUST 1991, See Figs 1-2	1-7
Y	US, A, 2,346,636 (PORTER) 11 APRIL 1944, See Fig. 1	1-7
Y	US, A, 4,262,802 (LAAUWE) 21 APRIL 1981, See Figs. 1 and Fig. 3	1-7

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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