US 20030192909A1

(19) **United States**

(12) **Patent Application Publication**

Maskell

(10) **Pub. No.: US 2003/0192909 A1**

(43) **Pub. Date: Oct. 16, 2003**

(54) **DEVICE FOR STORING AND SQUEEZING SACHETS**

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(21) Appl. No.: **10/413,638**

(22) Filed: **Apr. 15, 2003**

(30) **Foreign Application Priority Data**

Apr. 15, 2002 (EP) 02252634.7

Publication Classification

(51) **Int. Cl.**[7] **B65D 35/28**

(52) **U.S. Cl.** **222/103**; 222/105

(57) **ABSTRACT**

A device for holding sachet and emptying its content comprising two hingedly connected members through which the sachet is placed wherein at least one member comprises an aperture through which the outlet of the sachet is passed.

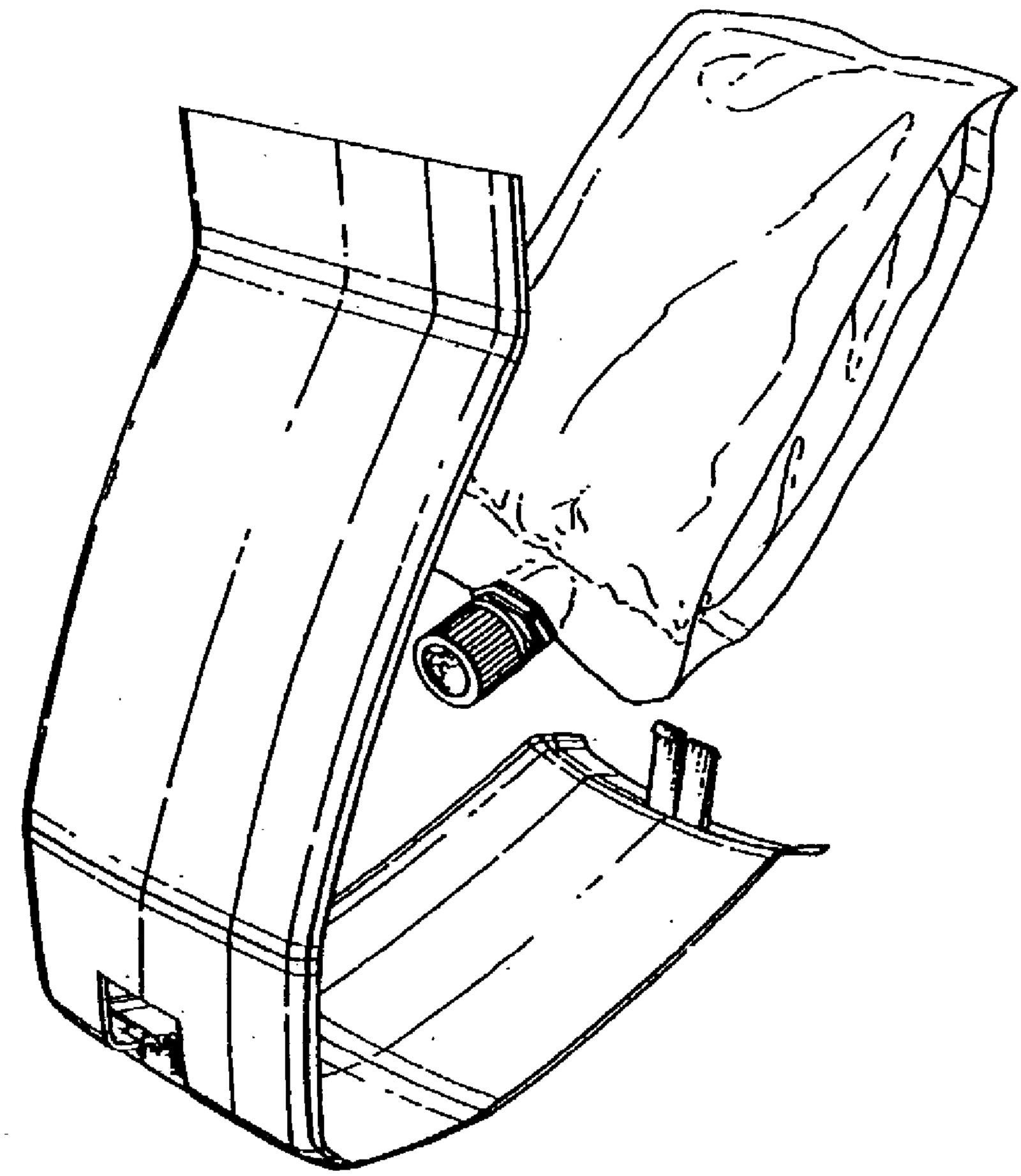
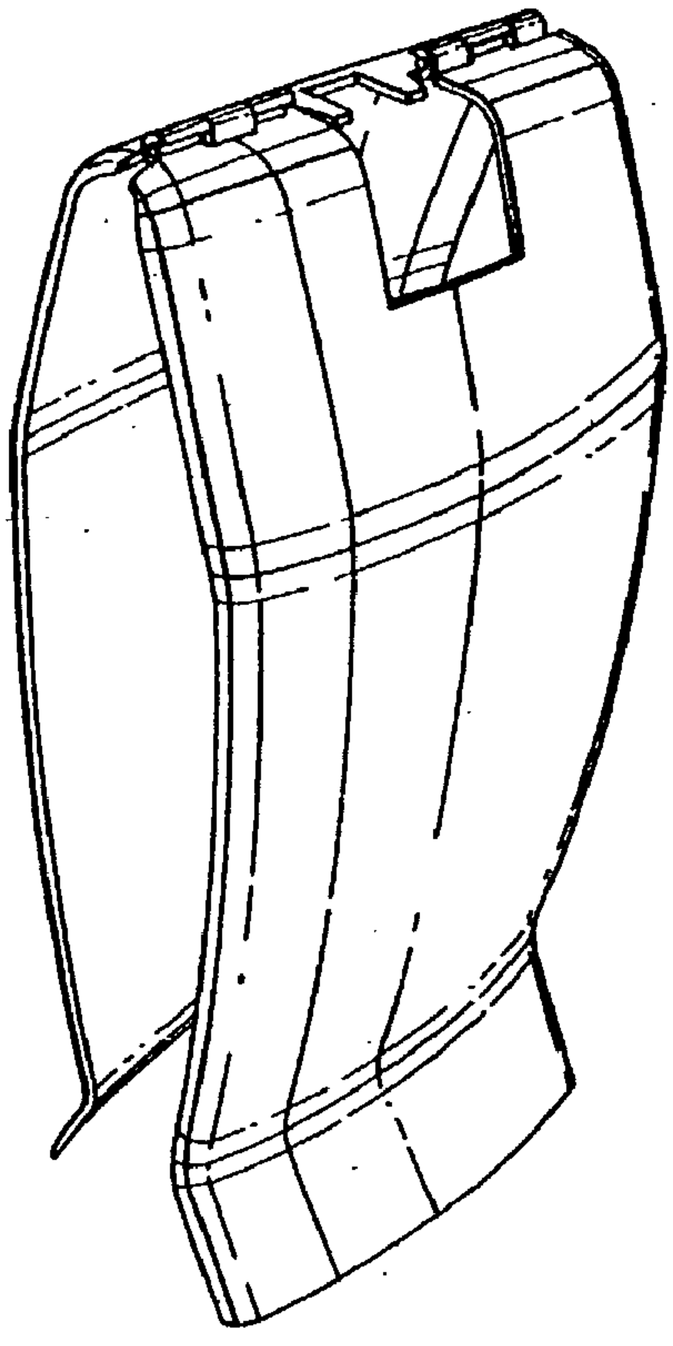


Fig. 1

a)



b)

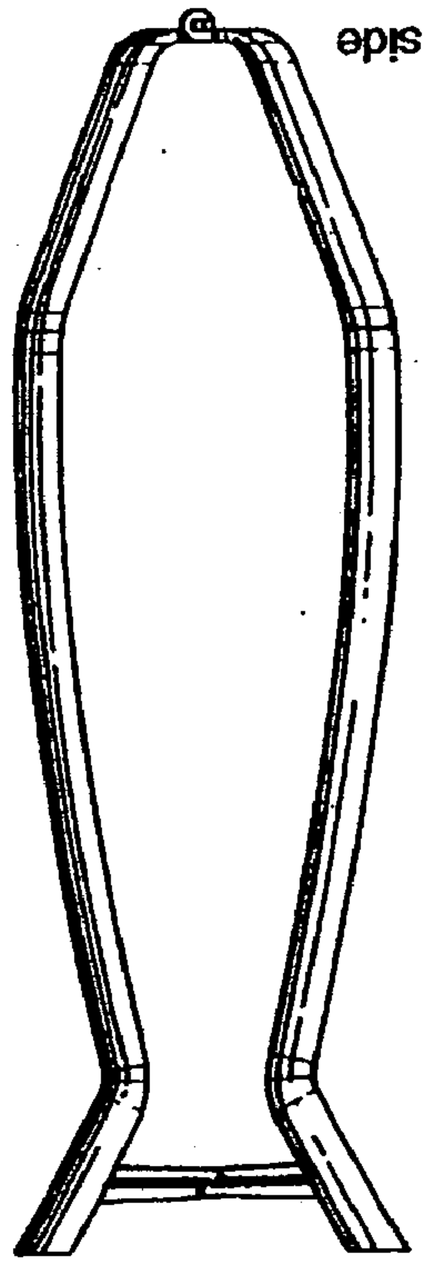
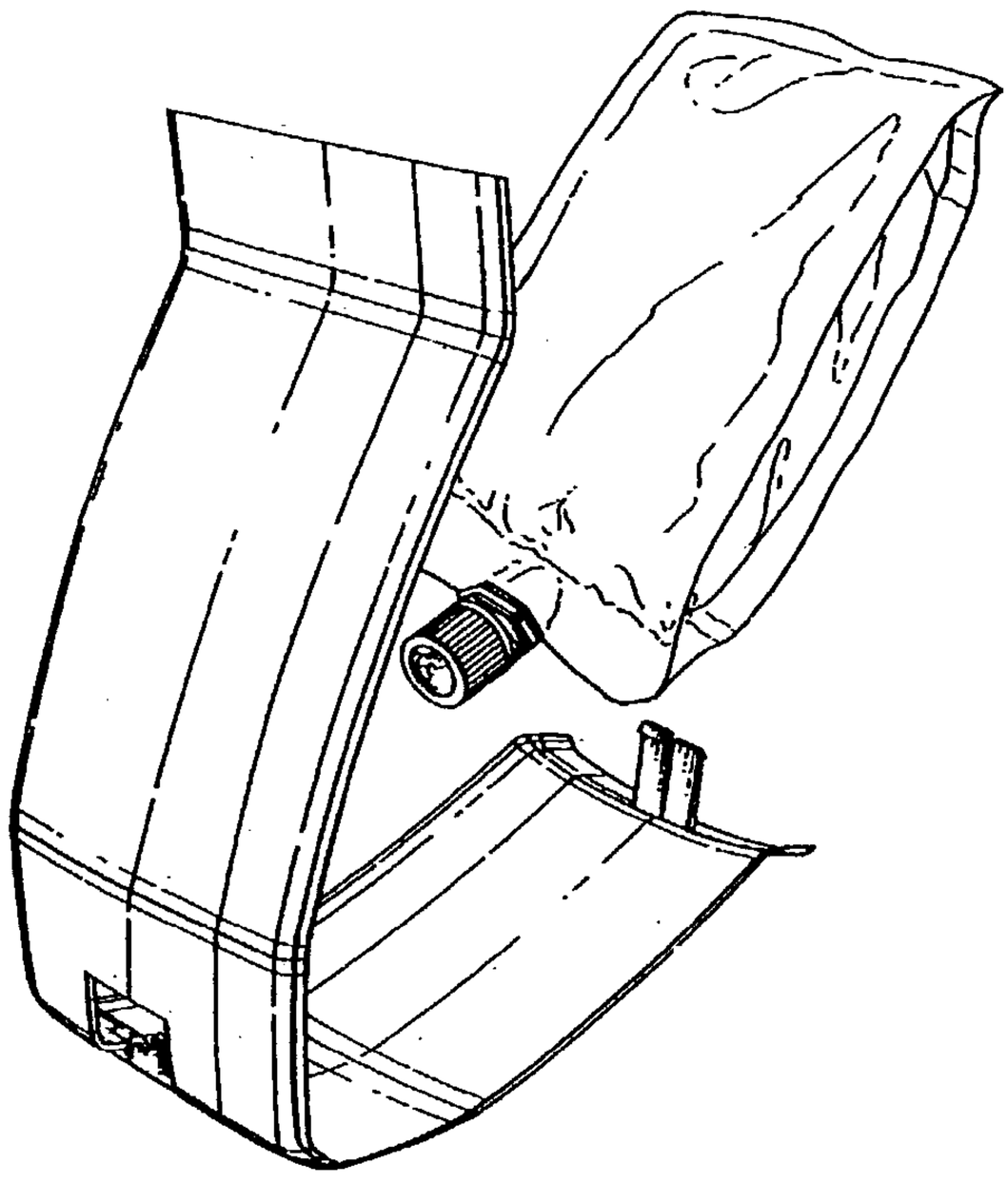
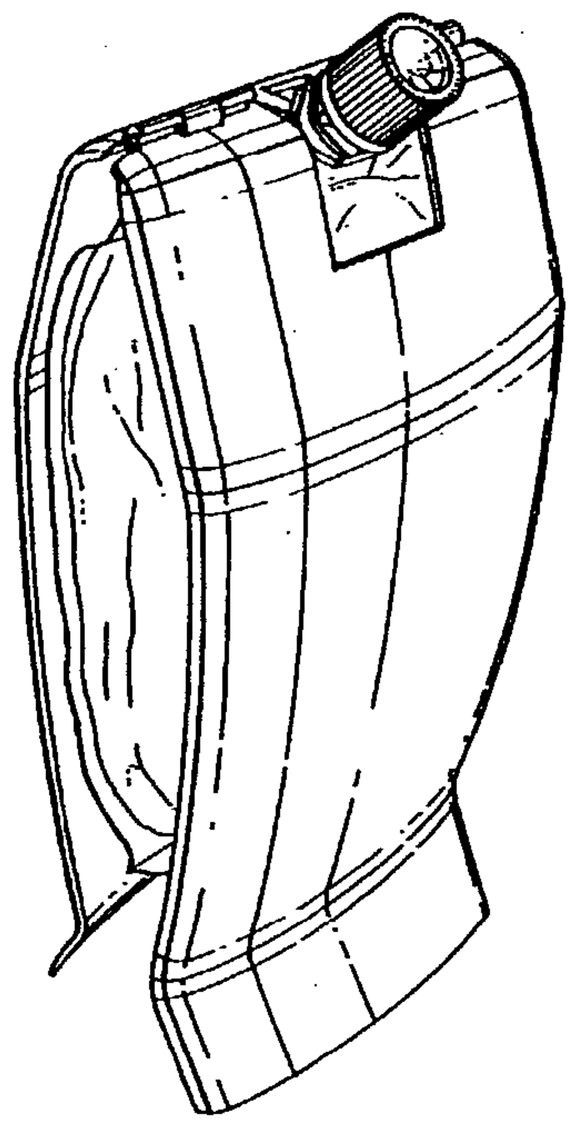


Fig. 2

a)



b)



DEVICE FOR STORING AND SQUEEZING SACHETS

FIELD OF THE INVENTION

[0001] The present invention relates to a device for storing and squeezing collapsible containers, said containers having at least one dispensing outlet.

[0002] The invention also relates to a kit of parts, comprising a reusable container storing device and at least one collapsible container having a dispensing outlet.

BACKGROUND OF THE INVENTION

[0003] Collapsible containers such as, for example, sachets or pouches are becoming increasingly popular packaging forms for pourable or squeezable products because they can be cheaply manufactured and are of low weight. Many collapsible containers, particularly containing liquid or squeezable food products, comprise resealable dispensing outlets to allow for the dispensing of multiple portions of the content of the containers. These type of containers are frequently used for food products such as mayonnaise or ketchup and also for personal care products such as tooth-pastes, washing liquids, shampoos or liquid soaps.

[0004] A disadvantage in using such collapsible containers is that the contents are often not very easily dispensed, particularly, when the container is nearly empty. Another disadvantage of collapsible containers is that they often lack the rigidity to be conveniently stored, transported, handled and/or displayed. Particularly, difficulties in stably storing such containers in the upright position as opposed to lying them down on the shelves, both in commercial use, e.g. on supermarket shelves as well as in the home, is a commonly encountered problem.

[0005] In order to try to overcome the lack of instability, collapsible containers have been manufactured which comprise either reinforcements or rims to enable the containers to stand on their own. This however, has the disadvantage that it increases the manufacturing costs for the container but it still does not provide suitable stability for upright storage. Furthermore, it increases the amount of packaging material which is becoming increasingly undesirable for environmental reasons. Holders have also been developed to try to overcome some of the problems outlined above.

[0006] U.S. Pat. No. 2,903,161 discloses a bag supporter and bag content dispenser comprising two elongated side portions, means movably attaching together said side portions, means for engaging and upholding a bag disposed between the side portions and tearing means.

[0007] Although U.S. Pat. No. 2,903,161 provides a solution to some of the problems described above, there is still a need for a device for storing and squeezing a collapsible container (such as a sachet or a pouch) that meets most or all of the following criteria:

[0008] it allows the storage of the collapsible container in an upright position without requiring excessive storage space (shelf space), it offers at least some protection from physical damage to the container, it is of simple construction and/or has only a minimal number of components, it is cheaply manufactured—ideally from a unitary body of a flexible material, it allows the contents of the container to be easily dispensed without leaving a large amount of the contents which cannot be dispensed from the container (ideally by single-handed use), and/or it is reusable.

[0009] The device provided by the invention disclosed herein solves or at least reduces most or all of the problems listed above.

SUMMARY OF THE INVENTION

[0010] The present invention provides according to a first aspect a device for storing and squeezing a collapsible container having at least one dispensing outlet, the device comprising two opposing bodies wherein at least one of the bodies comprises an aperture through which the outlet of the container passes, the bodies being hingedly linked to accommodate the container such that the exertion of pressure on one or more of the bodies moves the bodies towards each other to squeeze the container, the device further comprising means to enable the device to stand.

[0011] According to a second aspect the present invention provides a kit of parts comprising a device according to any one of claims 1 to 11 and a collapsible container, said container having a dispensing outlet.

DETAILED DESCRIPTION OF SOME NON-LIMITING EMBODIMENTS OF THE INVENTION

[0012] A device according to the invention is a holder for storing and squeezing a collapsible container wherein the container has at least one dispensing outlet. The container has an upper part and a lower part. The upper part of the container is defined as the portion of the container wherein the dispensing outlet is situated.

[0013] Although the device can be used for any type of conventional collapsible container, preferred containers according to the invention are pouches or sachets. Preferably, the containers are containers for liquid or squeezable food products, or personal care products e.g. tooth-paste, shampoos and washing liquids. The dispensing outlet of the container is preferably a resealable outlet. Preferably, the body of the container is wider than the outlet. If the resealable outlet is covered by a lid, it is preferred that the lid does not cover the entire outlet but leaves part of the outlet Between lid and body of the container accessible for an engagement means.

[0014] The device comprises at least two opposing bodies that are hingedly linked. At least one of the bodies has an aperture. When inserting the collapsible container into the device, the container is placed between the opposable bodies of the device and the outlet of the container is passed through the aperture. Generally, the outlet extends beyond the perimeter of the opposing bodies or extends beyond the perimeter of at least of one of the exposing bodies.

[0015] Hingedly linked as used herein is understood to mean to mean to allow the movement of the bodies towards and away from each other as if they were attached to each other by means of a hinge. An actual hinge may be used but any means fulfilling the same purpose as a hinge may also be used.

[0016] Suitable examples therefor are membranes, films, folds or a thinned section in a unitary piece of material. For

example, the two bodies may be formed from a unitary body of plastics material, which at some point is reduced in thickness so as to allow opposable movement of the parts separated by the reduced thickness section along that section.

[0017] Preferably, the device is configured such that the opposing bodies are hingedly linked at the upper part of the device when the device stands in an upright position. Preferably, the opposing bodies are configured (with respect to aperture and hingedly linkage) such that the upper part of the container after being accommodated between the bodies comes to rest at, or near, the hinged linkage of the bodies.

[0018] At least one of the bodies comprises an aperture through which the outlet of the collapsible containers passes. Generally, the aperture is at, next, or close to, the part of the device where the opposing bodies are hingedly linked. Preferably, the aperture is at the upper part of the device, when the device stands in an upright position. The aperture is shaped such that the outlet of the container can pass through it. Generally, the aperture is at least of the same width as the outlet of the container but smaller than the body of the container.

[0019] The opposing bodies can be made of a single piece of a material, or, they can be made of multiple, separated pieces. The opposing bodies may be smooth, roughened or textured on the inside and/or on the outside in order to facilitate handling and/or use.

[0020] Preferably, at least one the opposing bodies is flexible, more preferably all bodies are flexible.

[0021] The bodies may be of any shape. Preferably they are elongated. Most preferably they are of substantially the same length as the collapsible container. Preferably, at least one of the bodies is wider than the collapsible container.

[0022] The device further comprises standing means.

[0023] The standing means can be any means known in the art that enables the device to be stood upright.

[0024] A means to enable the device to stand may be an integral part of at least one of the opposing bodies.

[0025] The standing means may also be a base. Such standing means may comprise one or more base portions, provided on one or both of the opposing bodies. The base portions may be inwardly or outwardly inclined relative to the non-base portion of the opposing body. The means to enable the device to stand upright may comprise one or more thickened end portions provided on at least one of the opposing bodies.

[0026] The device may further comprise means that keeps the collapsible container in place.

[0027] Such a means can be a mere support of the collapsible container, or, it can be a means that secures or engages the container. Preferably, the means secures the outlet of the container. Any means known in the art that can fulfil a supporting, securing or engaging function may be suitably used according to the invention. Suitable examples include glue, springs, straps, protruding features, supports, locks, adhesive tapes or hooks etc.

[0028] The means may be an integral part of the device.

[0029] In one embodiment according to the invention, at least one of the bodies is, on its inner side, shaped such that it has a ledge or a rim. In this embodiment the device is dimensioned such that the ledge fits under the bottom of the collapsible container after the outlet has been passed through the aperture and thus the ledge or rim serves to support the container. Any configuration or shape of one or both opposable bodies that can serve this function is a suitable means according to the invention.

[0030] In another embodiment according to the invention the outlet of the container is kept in place by the edges of an aperture or recess in which the outlet of the collapsible container fits. Aperture (recess) and outlet are shaped and dimensioned such that the edges of that aperture fit closely around the outlet of the collapsible container thus securing the container. Preferably that aperture in which the outlet of the collapsible container fits is a second aperture, which is situated at, or in proximity to, the first aperture through which the outlet of the container passes. More preferably, the second aperture is located at the hinged attachment of the opposing bodies.

[0031] The device may further comprise fixation means that once engaged keeps the opposing bodies in a fixed spatial position relative to each other. This means allows the opposing bodies to be secured closely around the collapsible container, which has been accommodated between the opposing bodies. Suitable fixation means according to the invention are any fixation means known in the art, for example, a couple of mechanically interacting devices that serves a lock and key function.

[0032] Preferably, the fixation means can be reversibly engaged and released. Other examples for the fixation means include magnets or adhesive tapes.

[0033] Preferably, the fixation means is an integral part of the device.

[0034] The fixation means can also fulfill the function of the means to keep the collapsible container in place. For example, the fixation means can be configured and placed such that it supports the bottom part of the collapsible container after its outlet has been passed through the aperture of the device.

[0035] Preferably the device is dimensioned such that it fits closely around the container so that not much more space is required for storing the device plus container as compared to storing the container on its own. Preferably, the device has no more than three different components, more preferably no more than two different components.

[0036] The device may be made from a unitary body of a suitable material. A suitable material is any material that is sufficiently flexible to allow the collapsible container to be squeezed by the exertion of pressure, e.g. manually applied pressure upon the bodies of the device but which still provides sufficient rigidity for the device to stand in upright position and allow protection of the collapsible container from physical damage upon storage. Examples for suitable materials are, amongst others, plastics materials, cardboard, composite materials and/or metals.

[0037] Preferably, a material is used that allows the device to be manufactured by using molds. Preferably, the device is

made from a plastic material. More preferably, the device is made from a plastics material.

[0038] According to one embodiment there is provided a device comprising two opposing bodies, standing means and means to keep the collapsible container in place wherein the opposing bodies are shaped and configured such that they can fulfill the function of all these means, in which case all these means form an integral part of the device.

[0039] In another embodiment of the invention the standing means are formed by two opposing bodies that are, at their bottom parts shaped outwardly to allow the device to be freely self-standing. Each of the two bodies has on its inside face, protruding features at a position that support the bottom of the container after the dispensing outlet of the container has been passed through the aperture. One of the protruding features may comprise a hole whereas the other protruding feature provides a fitting knob that can be placed in the hole thus fixing the two members together. In this embodiment the fixation means also keeps the container in place.

[0040] The invention further relates to a kit of parts comprising a collapsible container as described above having a dispensing outlet as described above and a device for holding and squeezing the container as described above. Preferably, the outlet is covered by a lid. More preferably, some part of the outlet between the lid and the body of the container is accessible. Preferably, the outlet of the container is shaped such that it can be engaged by the means of the device that keeps the sachet in place. Preferably, the outlet of the collapsible container is kept in place by the edges of a second aperture as described above.

[0041] The device according to the invention can be assembled as follows:

[0042] The opposing bodies of the device are moved away from each other by movement along their hinged attachment. The device is then placed around the collapsible container and the outlet of the collapsible container is placed through the aperture of the device. If necessary the sachet is then secured by the means provided for this purpose. The members are moved towards each other and fixed, if fixation means are present. The device may then be put in an upright position for use and storage.

[0043] If pressure is exerted on the opposing bodies in a manner so as to move the bodies towards each other, the container can be squeezed and the contents of the container can be released through the dispensing outlet of the container.

[0044] The invention will further be exemplified by means of the following figures, which show an embodiment of the invention.

[0045] **FIG. 1** shows an embodiment of a holder according to the invention.

[0046] **FIG. 1***a*) shows a perspective view of the empty holder.

[0047] **FIG. 1***b*) shows a side view of the empty holder.

[0048] **FIG. 2** shows an embodiment of the holder with a collapsible container.

[0049] **FIG. 2***a*) shows the holder in a half-opened position with a collapsible container being placed in it.

[0050] **FIG. 2***b*) shows the holder in a closed position holding the container.

1. A device for storing and squeezing a collapsible container having at least one dispensing outlet, the device comprising two opposing bodies wherein at least one of the bodies comprises an aperture through which the outlet of the container passes, the bodies being hingedly linked to accommodate the container such that the exertion of pressure on one or more of the bodies moves the bodies towards each other to squeeze the container, the device further comprising means to enable the device to stand.

2. A device according to claim 1 wherein the aperture is at the upper end of the device, when the device is put in an upright position.

3. A device according to claim 1 wherein the bodies are hingedly linked at the upper part of the device when the device stands in an upright position.

4. A device according to claim 1 wherein at least one of the opposing bodies is flexible.

5. A device according to claim 1 wherein at least one of the opposing bodies is of substantially the same length as the body of the collapsible container.

6. A device according to claim 1 wherein the means to enable the device to be stood upright comprises at least one of the opposing bodies which is shaped such that it allows the device to stand on its own in an upright position.

7. A device according to claim 1 further comprising means to keep the collapsible container in place.

8. A device according to claim 1 further comprising means to keep the collapsible container in place, which means are the edges of an aperture in which the container fits.

9. A device according to claim 1 further comprising means to keep the collapsible container in place, which means are the edges of an aperture in which the container fits and wherein the edges of aperture secure the outlet of the container and wherein the apertures are shaped such that the outlet of the container fits in it.

10. A device according to claim 1 further comprising means to keep the collapsible container in place wherein said means to keep the sachet in place comprises a means protruding from the inner face of at least one of the opposing bodies at a position such that the collapsible container is securely placed between the aperture and the protruding means.

11. A device according to claim 1 further comprising fixation means that if engaged keeps the two opposable bodies in a fixed position relative to each other.

12. A device according to claim 1 wherein the device is being made from a unitary body of a flexible material.

13. A kit of parts comprising a device according claim 1 and a collapsible container, said container having a dispensing outlet.

14. A kit of parts comprising a device according claim 1 wherein the device comprises an aperture whose edges secure the outlet of the container and at least one container having a dispensing outlet sized that it can be secured by the edges of that aperture.

15. A kit of parts comprising a device according claim 1 wherein the device comprises an aperture whose edges secure the outlet of the container and at least one container having a dispensing outlet sized that it can be secured by the edges of that aperture, wherein said container is a collapsible pouch.

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