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(54) **CARABINER DEVICE FOR CONTAINERS**

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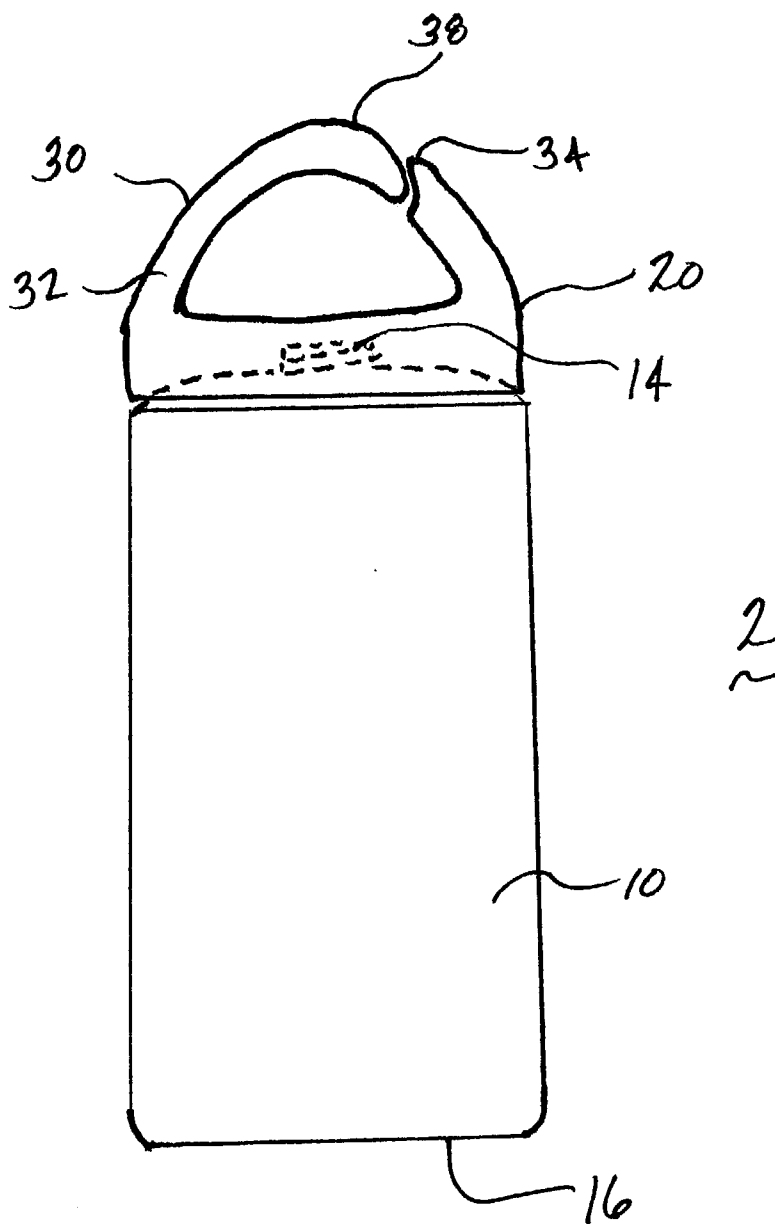
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(57) **ABSTRACT**

Carabiner-type attachment devices adapted for use on containers and the closure devices employed therewith and more specifically to containers, closure devices such as caps for containers and devices having at least one removable portion. In a preferred embodiment the attachment device is in the form of a carabiner in which at least a portion of the carabiner body is integral with the container, container closure or removable portion.

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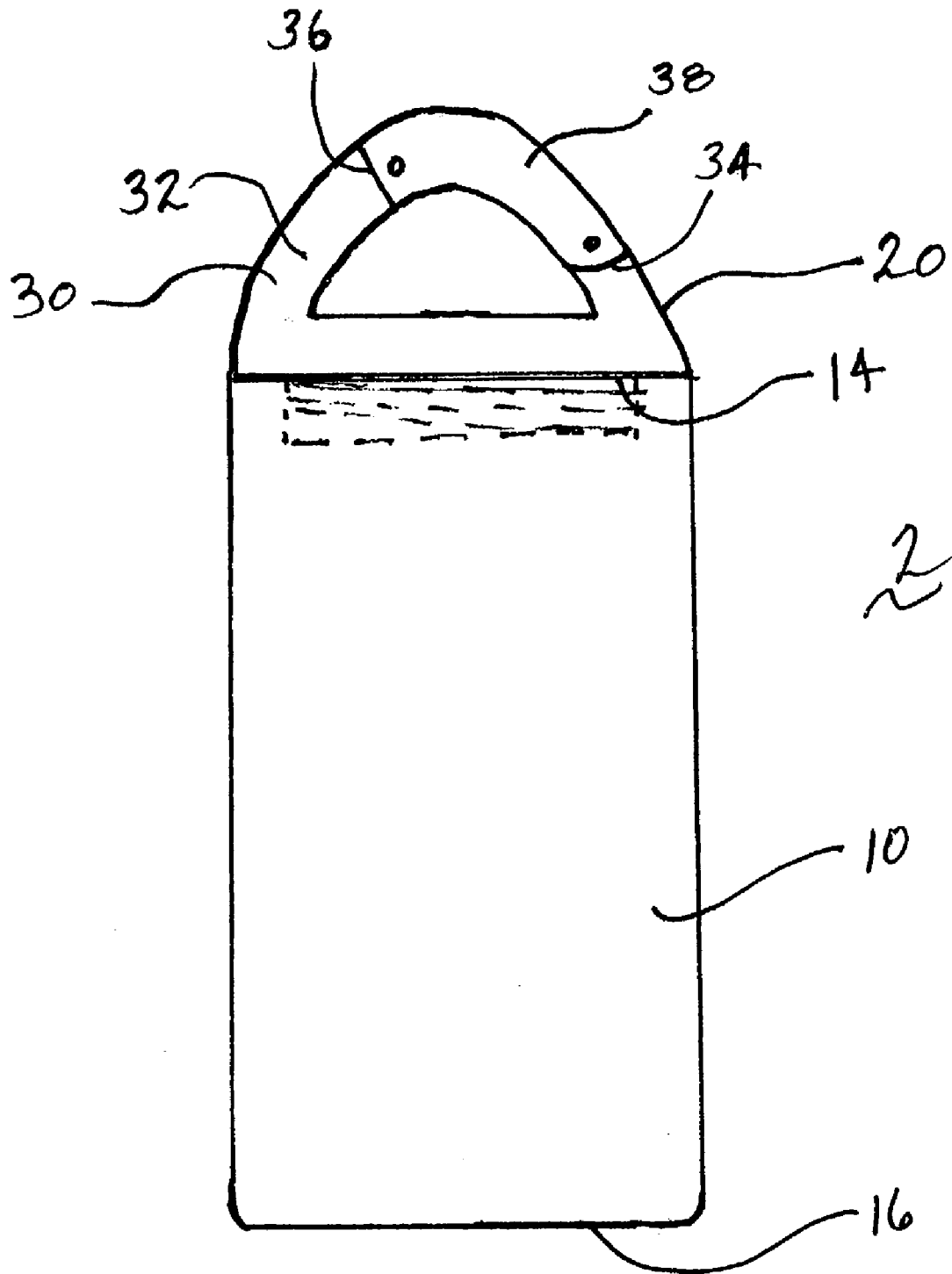
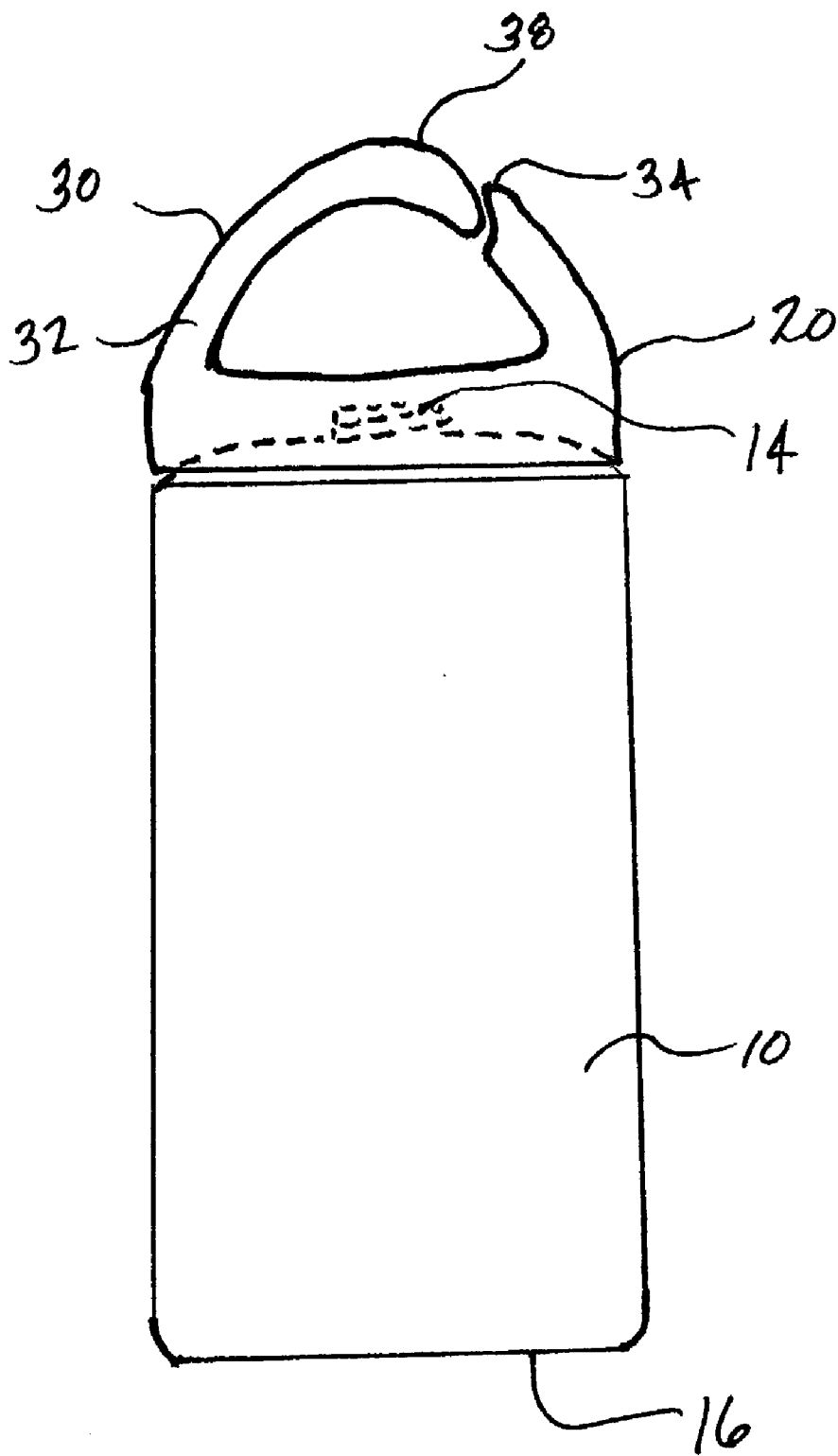


FIG. 1



2
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FIG 1A

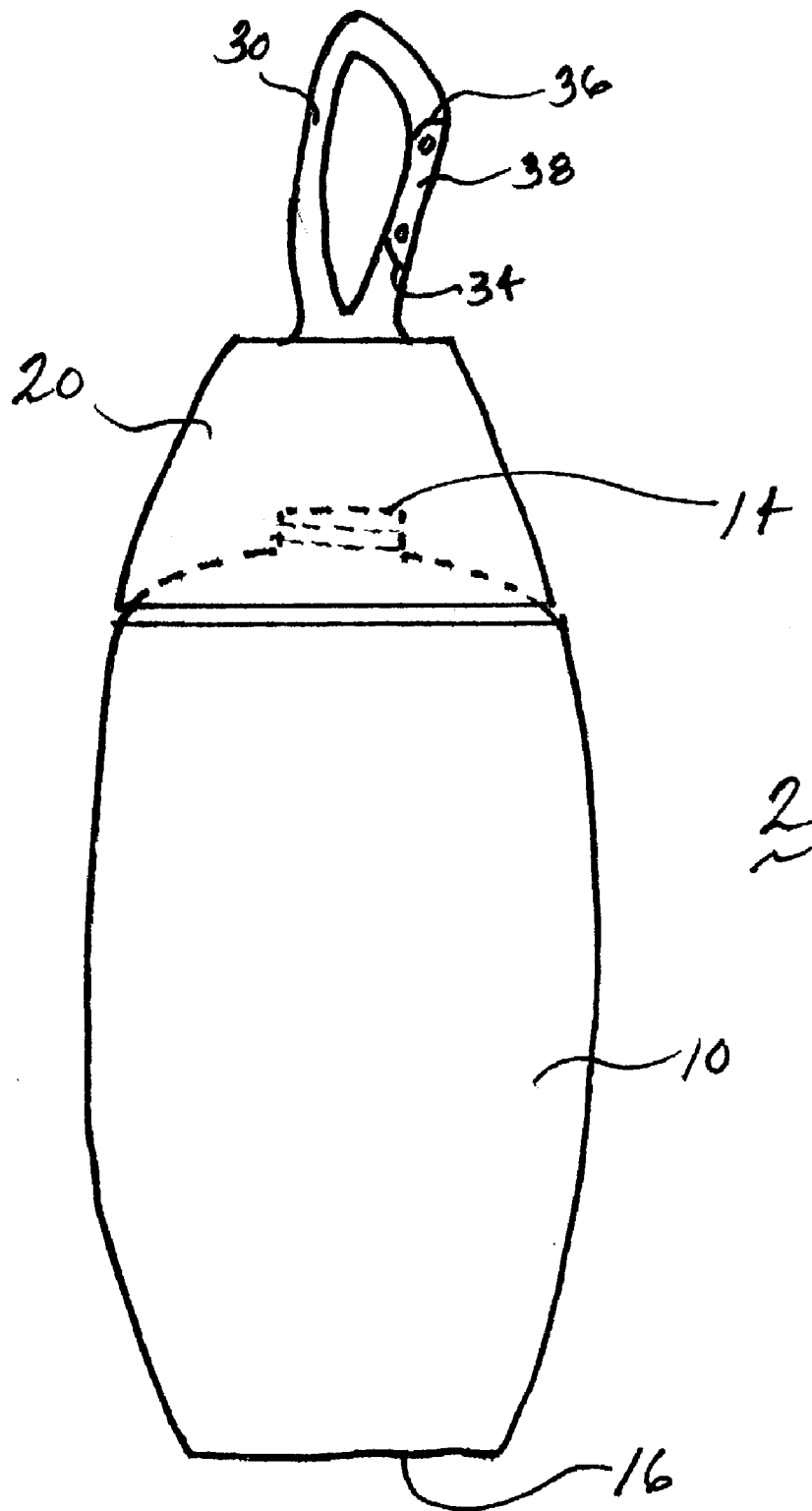


FIG. 1B

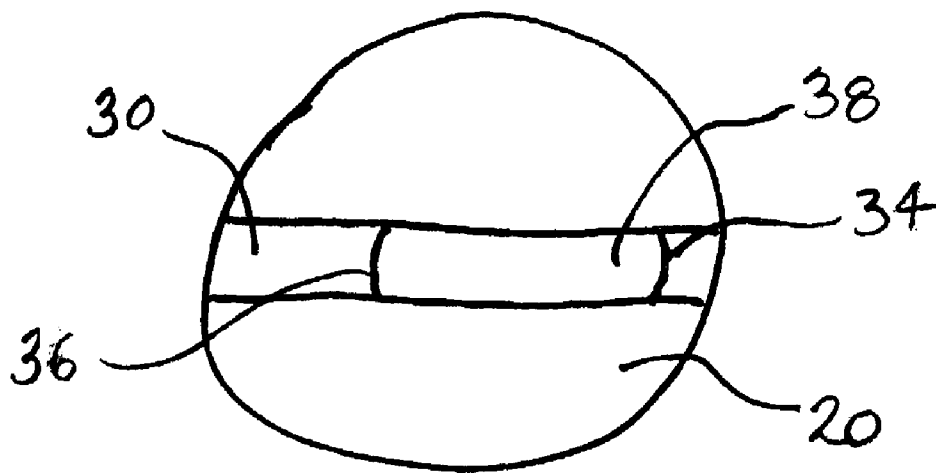


FIG. 2

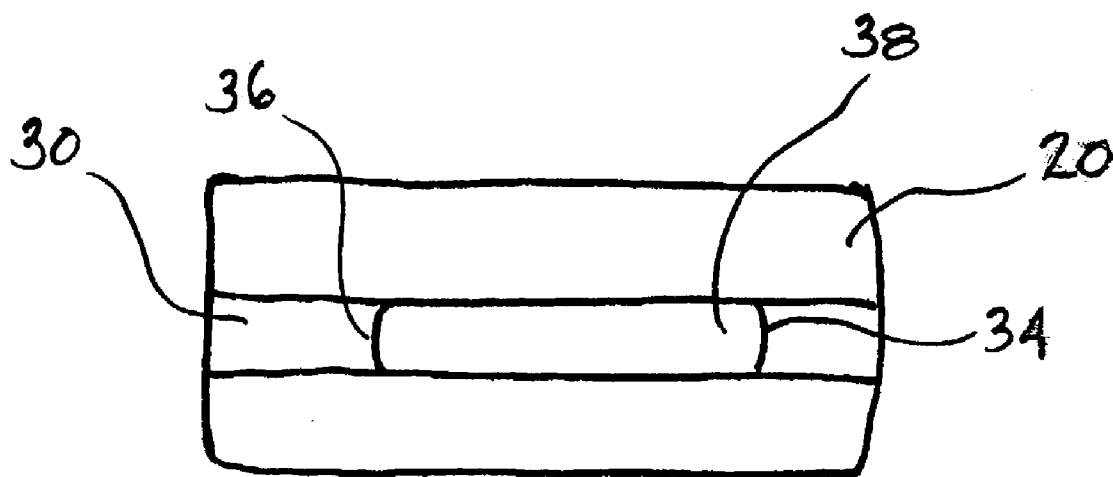


FIG. 3

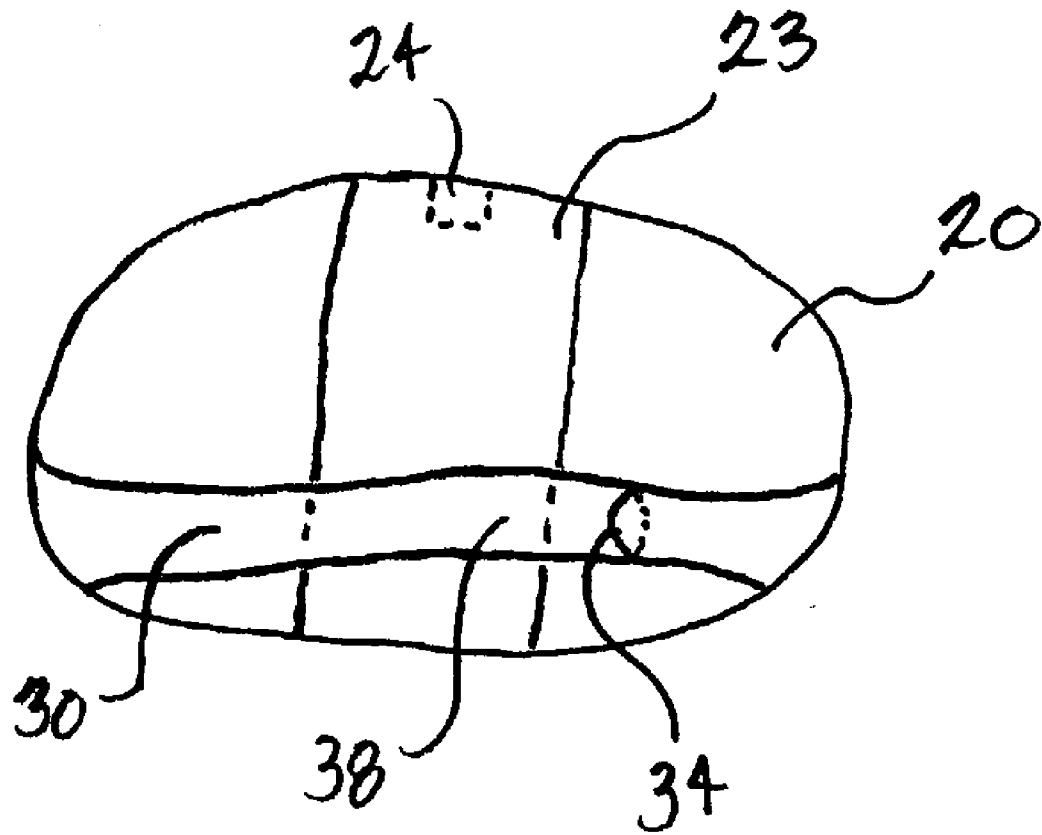


FIG. 3A

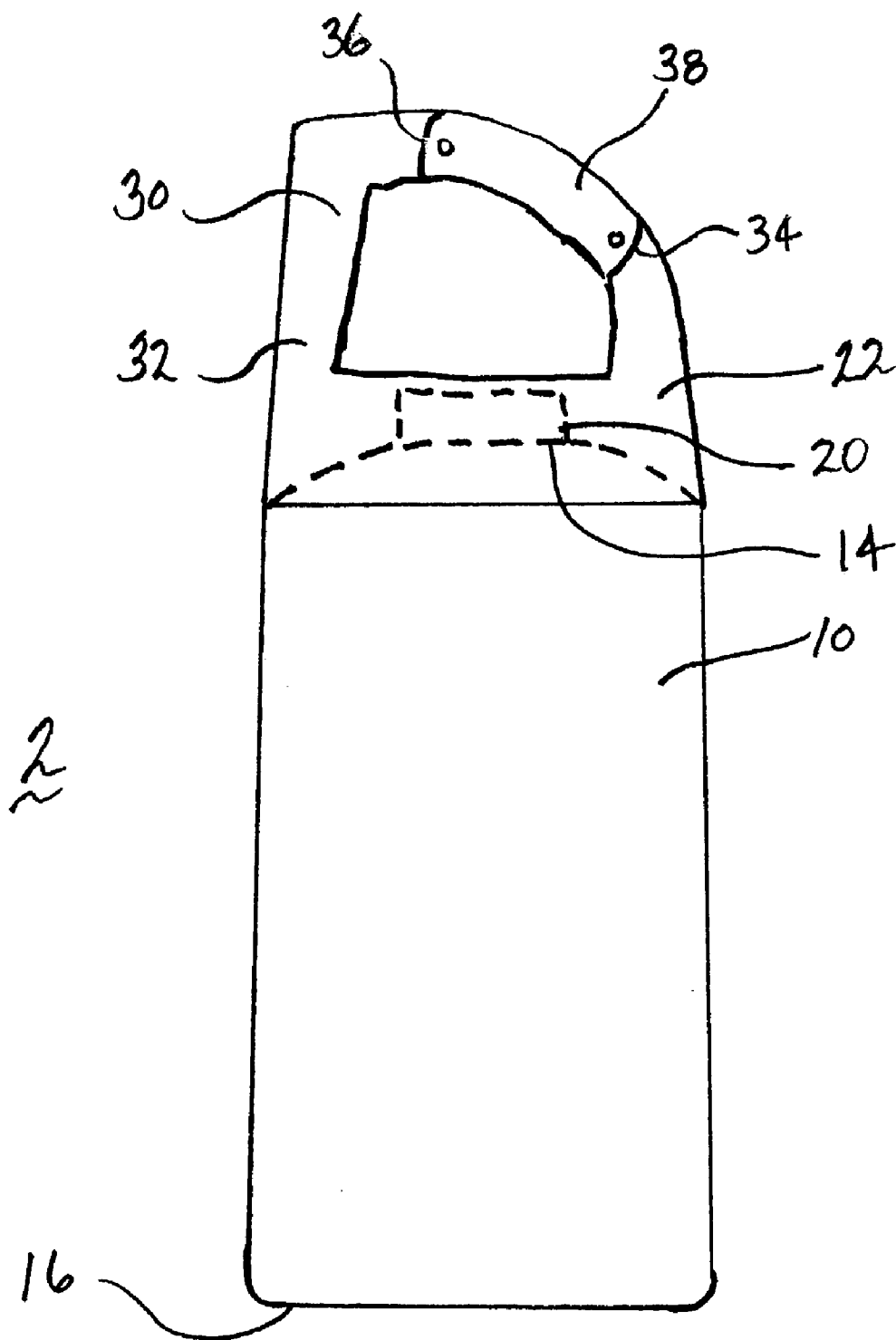


FIG. 4

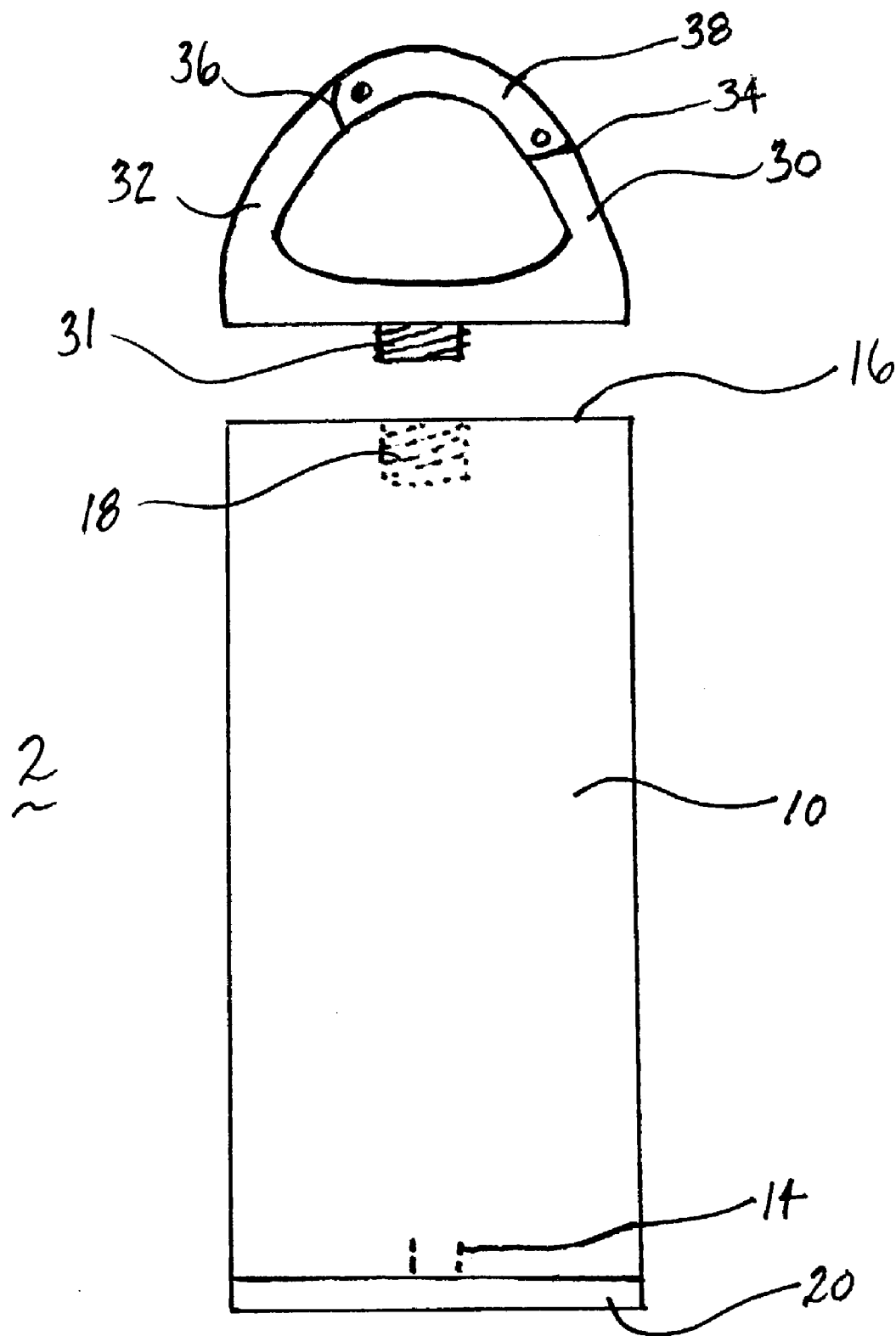


FIG. 5

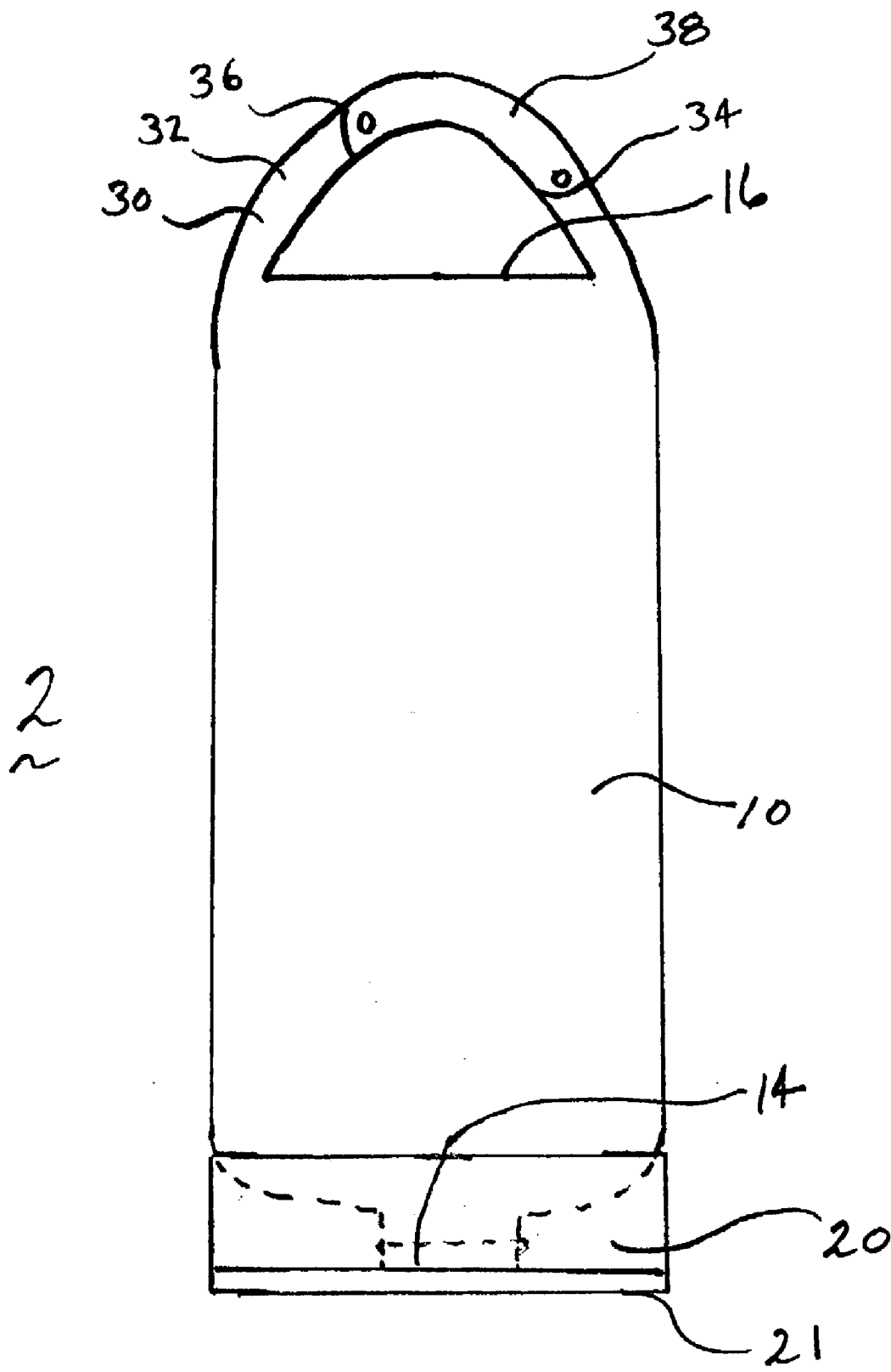


FIG. 6

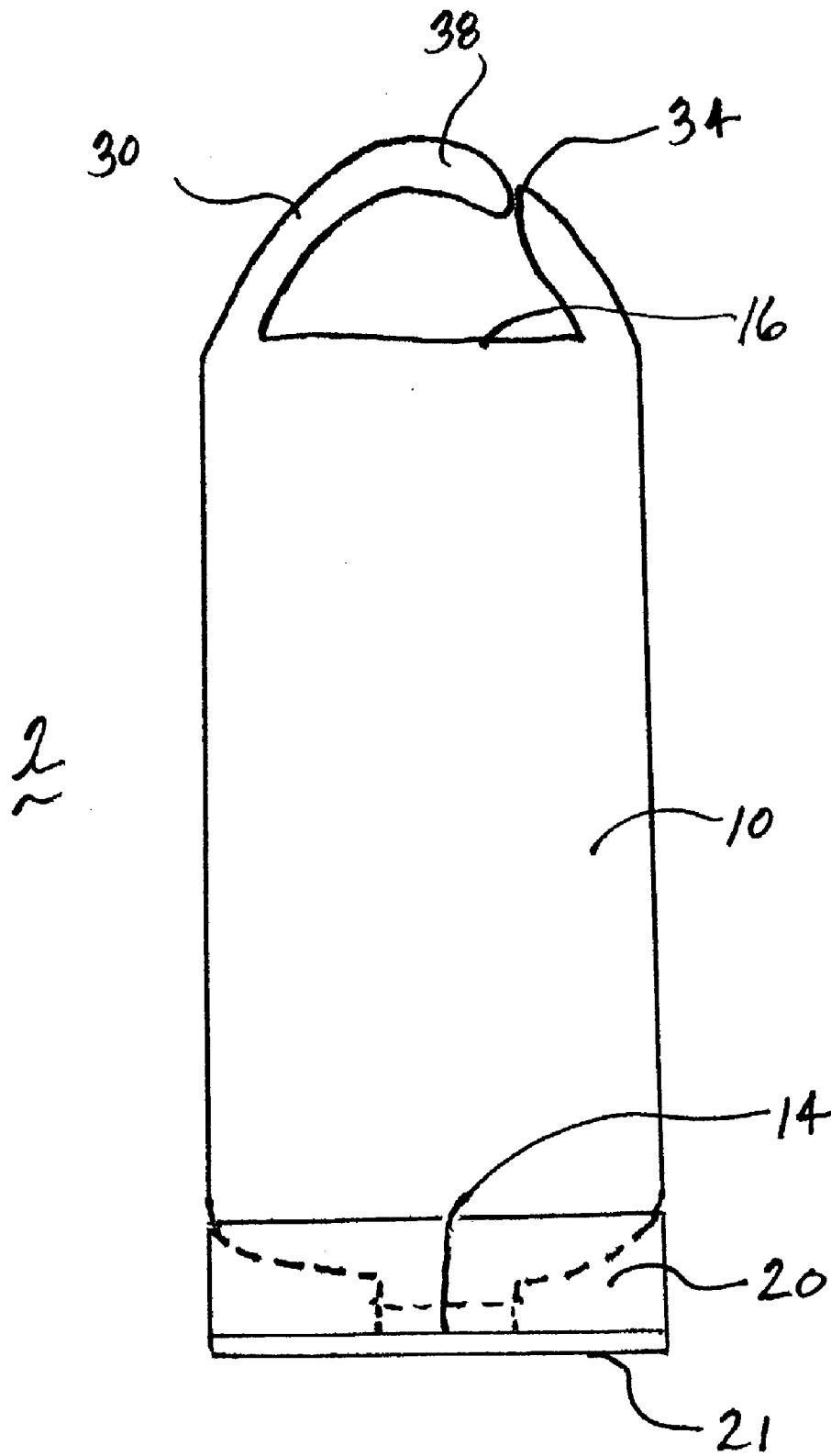


FIG. 6A

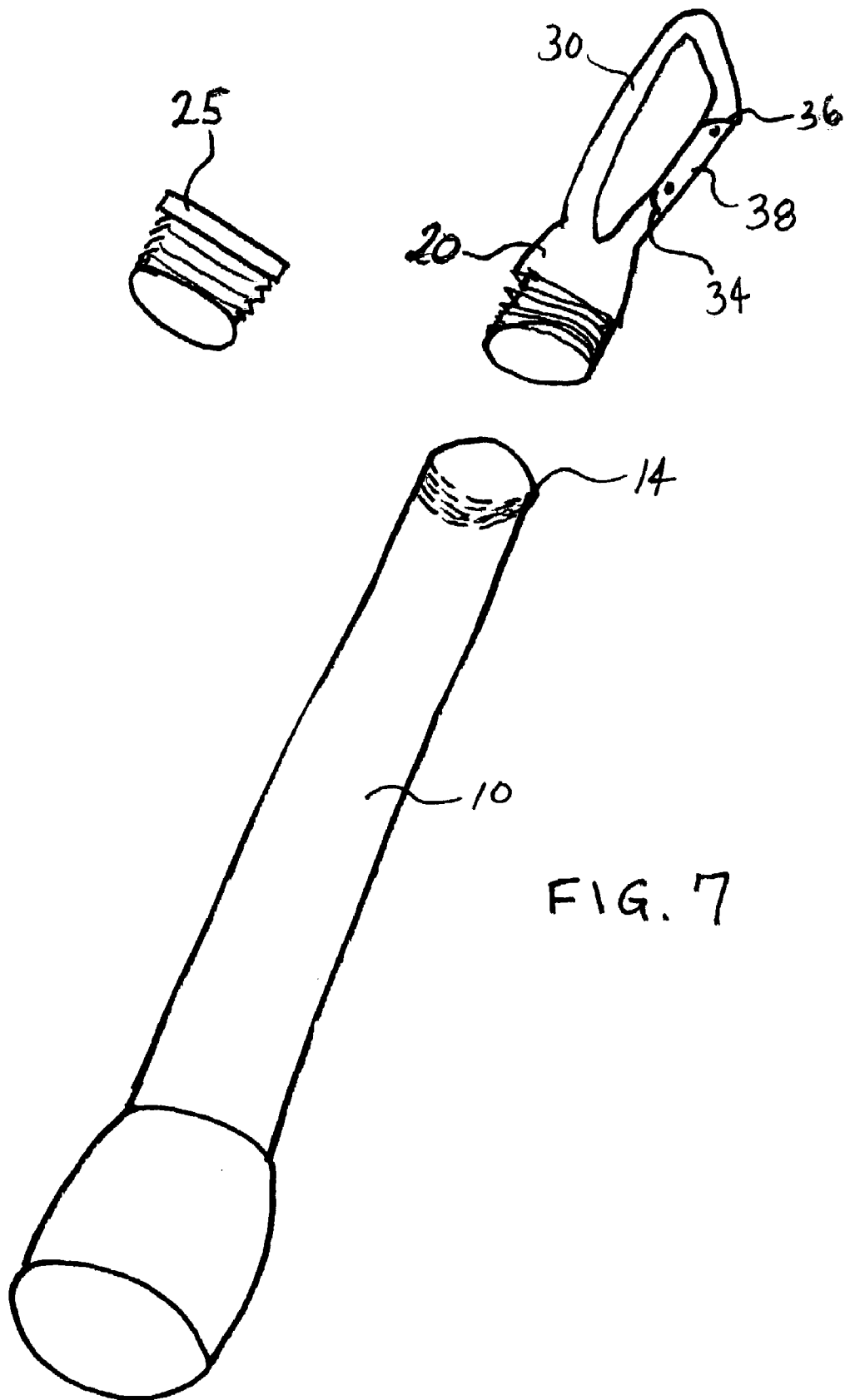
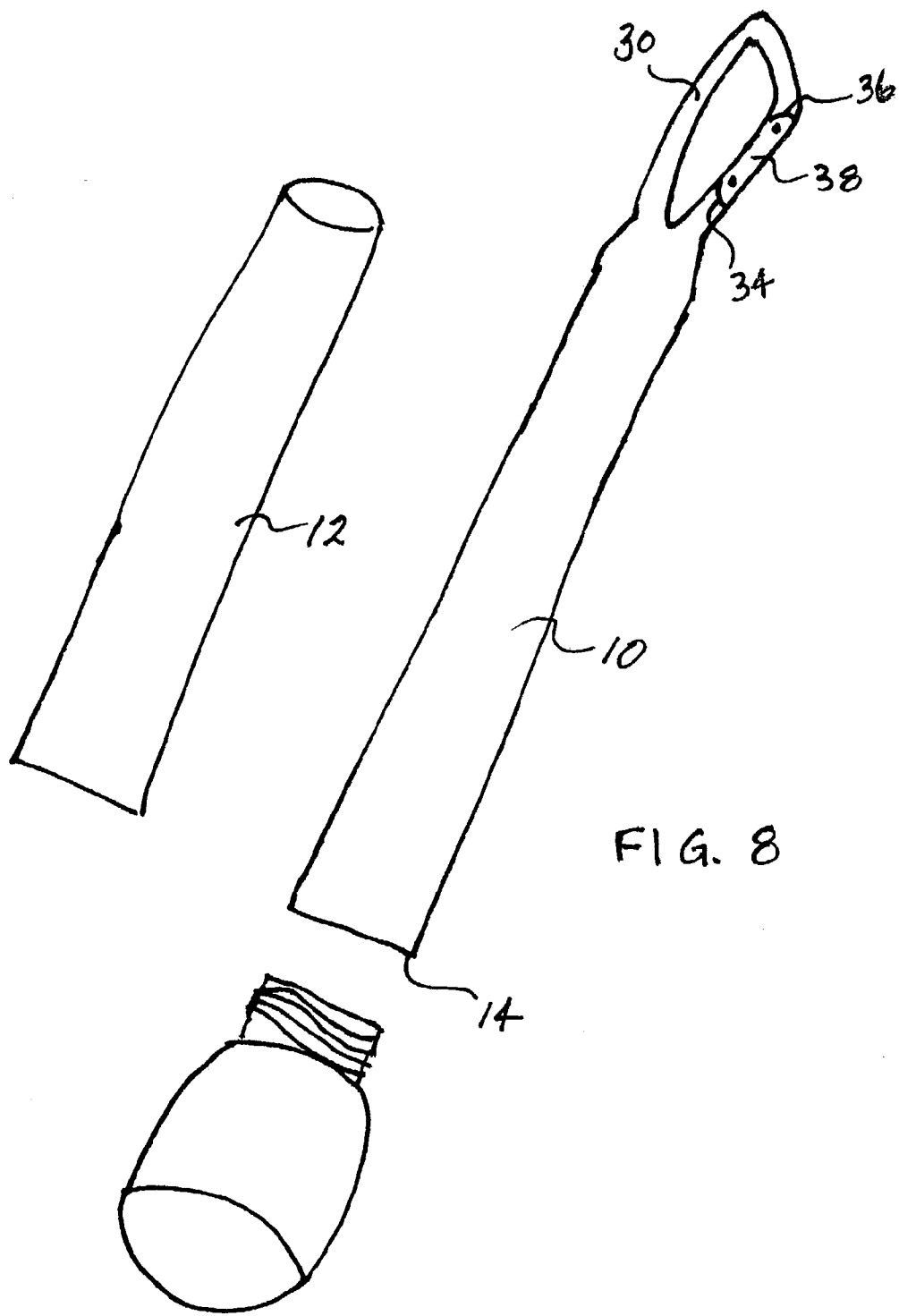


FIG. 7



CARABINER DEVICE FOR CONTAINERS

FIELD OF THE INVENTION

[0001] The invention relates generally to carabiner-type attachment devices adapted to use on containers and the closure devices employed therewith and more specifically to containers, closure devices such as caps for containers and devices having at least one removable end.

BACKGROUND OF THE INVENTION

[0002] Carabiners have long been in use for providing a means for attaching articles to each other. Such devices have numerous applications, such as for example enabling multiple articles to be secured to a backpack, purse, handbag, key chain or the like. U.S. Pat. No. 5,005,266 discloses a typical carabiner-type attachment device.

[0003] Numerous commonly used devices abound in which at least one end is openable and/or removable. Examples of devices having an openable end are containers such as bottles including but not limited to vacuum bottles such as those marketed under the trade name Thermos®, toiletry bottles such as but not limited to shampoo, soap and detergent bottles and various other bottles. Other such devices include tubes with removable caps such as those for containing and dispensing ointments, lotions, toothpaste and the like. Another example of such a device is a flashlight, wherein for example one end may be openable and/or removable for inserting batteries and the other end openable and/or removable for replacing the light bulb.

[0004] For many of the foregoing types of devices it would be a considerable advantage to be able to attach the device to other articles such as but not limited to luggage, belt loops, towel racks, wall hooks, utility belts, backpacks and the like.

[0005] Carabiner-type attachment devices have been employed in conjunction with containers and container tops, however, such carabiner-type attachment devices have been attached to said devices either directly by clipping the carabiner to said device or indirectly by means of an intervening device such as a clip or fabric web. U.S. Pat. No. 5,270,909 discloses an openable handle device attached to a mug or a flashlight. However, the prior art does not disclose or suggest a carabiner integrally attached to the end of a container or the end of a container closure device.

SUMMARY OF THE INVENTION

[0006] The present invention provides a carabiner-type attachment for containers, container closure devices and devices having at least one removable end. The attachment device is preferably in the form of a carabiner in which at least a portion of the carabiner body is integral with the container, container closure or removable end.

OBJECTS OF THE INVENTION

[0007] It is an object of the present invention to provide a carabiner-type attachment for a container wherein the carabiner-type attachment device is integral with the container.

[0008] It is another object of the present invention to provide a carabiner-type attachment for a container wherein the carabiner-type attachment device is detachable from the container.

[0009] It is a further object of the present invention to provide a carabiner-type attachment for a container closure device wherein the carabiner-type attachment device is integral with the container closure device.

[0010] It is a further object of the present invention to provide a carabiner-type attachment for a container closure device wherein the integral carabiner/closure device is employed as a replacement for a container closure device not having a carabiner-type device integral therewith.

[0011] It is yet a further object of the present invention to provide a carabiner-type attachment for a device having at least one removable end wherein the carabiner-type attachment device is integral with the removable end.

[0012] It is still a further object of the present invention to provide a carabiner-type attachment for a device having at least one removable end wherein the integral carabiner/removable end is employed as a replacement for a removable end not having a carabiner-type device integral therewith.

[0013] It is still a further object of the present invention to provide a carabiner-type attachment for a device having at least one removable end wherein an integral carabiner/container is employed as a replacement for a removable container not having a carabiner-type device integral therewith.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] **FIG. 1** is a front view of a preferred embodiment of the present invention;

[0015] **FIG. 1A** is a front view of another preferred embodiment of the present invention;

[0016] **FIG. 1B** is a front view of another preferred embodiment of the present invention

[0017] **FIG. 2** is a top view of a preferred embodiment of the invention;

[0018] **FIG. 3** is a top view of a preferred embodiment of the invention;

[0019] **FIG. 3A** is a top view of a preferred embodiment of the invention according to **FIG. 1A**;

[0020] **FIG. 4** is a front view of a most preferred embodiment of the invention;

[0021] **FIG. 5** is a front view of a further embodiment of the present invention;

[0022] **FIG. 6** is a front view of a preferred embodiment of the invention;

[0023] **FIG. 6A** is a front view of a preferred embodiment of the invention;

[0024] **FIG. 7** is a perspective view of a preferred embodiment of the invention.

[0025] **FIG. 8** is a perspective view of a most preferred embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0026] In the following description, for purposes of explanation, specific numbers, materials and configurations are

set forth in order to provide a thorough understanding of the invention. It will be apparent, however, to one having ordinary skill in the art that the invention may be practiced without these specific details. In some instances, well-known features may be omitted or simplified so as not to obscure the present invention. Furthermore, reference in the specification to "one embodiment" or "an embodiment" means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase "in one embodiment" in various places in the specification are not necessarily all referring to the same embodiment.

[0027] Now referring to **FIG. 1**, a preferred embodiment of the device **2** comprises essentially a container structure **10** having at least one open end **14**, a second end **16**, at least one closure device **20** and at least one attachment device **30**.

[0028] Container structure **10** may comprise any suitable container structure such as but not limited to a bottle, tube or the like or a component of a device for containing other elements such as but not limited to the container body of a conventional flashlight which typically accommodates at least one battery. Other examples of container structures contemplated herein include hollow or partially hollow tubes comprising handles adapted to have attached thereto useful devices such as but not limited to mop heads, squeegees and the like. Often such attachments are connected by insertion of a connector means into said handle. In a preferred embodiment the container **10** is elongated. In a most preferred embodiment the container **10** is cylindrical.

[0029] Container **10** employs at least one open end **14** to facilitate the dispensing or admission of contents to be contained therein, e.g., bottles and tubes dispense condiments such as mustard, ketchup, mayonnaise, dressings and the like and personal care products such as soap, shampoo, lotion, sunblock and the like, all employing at least one open end **14** to achieve the purpose of dispensing the contents contained therein. Likewise, containers **10** for housing disposable contents such as batteries employ at least one open end **14** for achieving said purpose. Containers **10** comprising hollow or partially hollow tubes such as hollow handles typically comprise at least one open end for accommodating mop heads, squeegees or the like.

[0030] In each case, in order to contain without leakage the contents of the container **10**, a closure device **20** is required. Closure device **20** may comprise any device suitable for closing open end **14** such as but not limited to a cap, plug, cover or the like, all of which are well known in the art, adapted to fit over, into or within open end **14** to prevent the unintended loss or discharge of the contents of container **10**. Now referring to **FIGS. 1-3A** and **7**, closure device **20** may be of any shape adapted to fit the shape and contour of container **10**. Additionally, closure device **20** may be adapted to form a screw-type engagement (**FIGS. 1-1B**) a snap-fit (**FIGS. 6, 6A**) or any other well-known engagement with said container **10**. In a preferred embodiment closure device **20** is removably engaged to container **10**.

[0031] Attachment device **30** comprises a body member **32** and at least one openable gate member **38**. Now referring to **FIG. 1** in a preferred embodiment body member **32** comprises an elongated section comprising a first end **34** and a second end **36** and is typically fabricated of any material

suitable for attachment devices such as but not limited to bare or coated metal, wood, rubber, plastic, combinations thereof or any other suitable material as is well known in the art. In a preferred embodiment gate member **38** comprises an elongated member pivotally attached at one end to one end of said body member **32**. The other end of gate member **38** contacts or is in close proximity to the other end of said body member **32** when said gate **38** is in a closed position. In a preferred embodiment gate member **38** is inwardly openable. Gate member **38** is fabricated of any suitable material as recited above for body member **32**, but does not necessarily need to be of the same material as that of body member **32**. Gate member **38** may be separately molded and attached to body member **32** by means of a pin or other means well known in the art. In a preferred embodiment body member **32** is curvilinear. In a most preferred embodiment attachment device **30** is formed in the shape of a carabiner but other shapes are contemplated by the present invention.

[0032] Now referring to **FIGS. 1A, 3A, and 6A** in one embodiment body member **32** comprises an elongated section comprising at least a first end **34**. Gate member **38** comprises an elongated member integrally attached to said body member **32** and the integral body **32** and gate member **38** are fabricated of a resilient material such as but not limited to rubber, plastic, or any other suitable resilient material as is well known in the art. A first end of gate member **38** contacts or is in close proximity to an end of said body member **32** when said gate **38** is in a closed position. In this embodiment a resilient attachment device is formed without a pivoting hinge. The gate member **38** simply deforms when pressure is applied and resiliently returns to its original position when pressure is released. In a most preferred embodiment attachment device **30** is formed in the shape of a carabiner but other shapes are contemplated by the present invention.

[0033] Now referring to **FIGS. 1-4** and **7**, in a preferred embodiment attachment device **30** is integrally formed with closure device **20**. Such integral embodiment may be achieved by any means known in the art appropriate for the material employed in construction of the attachment means, such as for example molding where said attachment means is fabricated of plastic. Now referring to **FIG. 3A** attachment device **30** is offset to accommodate a rocker type (or other type such as a flip top) dispensing device **23** providing an opening **24** in closure device **20**.

[0034] Now referring to **FIG. 4** in an alternate preferred embodiment device **2** comprises a container **10** comprising a thermal or vacuum container such as but not limited to that marketed under the trade name THERMOS®, at least a first closure device **20**, optionally a second closure device **22** and at least one attachment device **30** wherein said attachment device **30** is integrally formed on said second closure device **22**. Optionally, in this embodiment at least one attachment device **30** may be attached to either or both closure devices **20** and/or **22**. In another embodiment (not shown) at least one attachment device **30** is attached to the end **16** opposite first open end **14** of container **10**.

[0035] Now referring to **FIG. 5** in one embodiment attachment device **30** further comprises post **31** which is threadably engageable to threadable opening **18** of container **10** and thereby is removably attachable to container **10**, oppo-

site container opening **14**. In this embodiment closure device **20** is adapted to fit over container opening **14**. Note any conventional means for attaching attachment device **30** to container **10** may be employed such as but not limited to a snap fit, threadable engagement, friction engagement and the like.

[0036] Now referring to **FIG. 6**, in a preferred embodiment, attachment device **30** is integrally formed with container **10**, opposite container opening **14**. In this embodiment closure device **20** is adapted to fit over container opening **14**. In this embodiment closure device **20** further comprises a flip top lid **21**. Other conventional closure devices known to those having ordinary skill in the art may be employed.

[0037] Now referring to **FIG. 7**, in a most preferred embodiment device **2** comprises a container **10** comprising the elongated body portion of a conventional flashlight such as but not limited to that marketed under the trade name MAGLITE®, at least one attachment device **30** and closure device **20**. In a preferred embodiment attachment device **30** is integrally formed with closure device **20**. In one embodiment closure device **20** is manufactured separately from said container **10** and sold as an aftermarket replacement closure device **20** specifically adapted to fit into an end of an existing flashlight upon removal of original closure device **25** to provide an attachment means for a device that otherwise would have none. In a most preferred embodiment the attachment device **25** is in the form of a carabiner. In a most preferred embodiment the device **2** comprises metal, plastic or a combination thereof.

[0038] In addition, a method is provided comprising the steps of providing at least one first closure device **20** having at least one attachment device **30** disposed thereon, providing a container **10** having at least one original removable closure device **25**, removing said at least one original closure device **25** from said container **10** and replacing at least one of said original closure devices **25** with at least said first closure device **20** having at least one attachment device **30**. In a preferred embodiment at least one of said attachment devices **30** of said at least one first closure devices **20** has the appearance of a carabiner. In this method the container **10** can be any container **10** contemplated herein and the closure device **20** can be any closure device **20** contemplated herein.

[0039] Now referring to **FIG. 8**, in an alternate most preferred embodiment device **2** comprises a container **10** comprising the elongated body portion of a flashlight, at least one attachment device **30** and closure device **20**. In a preferred embodiment attachment device **30** is integrally formed with container **10**. In one embodiment container **10** is manufactured separately from said closure device **20** and sold as an aftermarket replacement container **10** specifically adapted so that open end **14** fits into closure device **20** of an existing flashlight upon removal of original container **12** to provide an attachment means **30** for a device that otherwise would have none. In a most preferred embodiment the attachment device **30** is in the form of a carabiner. In a most preferred embodiment the device **2** comprises metal, plastic or a combination thereof.

[0040] In addition, a method is provided comprising the steps of providing at least one first container **10** having at least one attachment device **30** disposed thereon, providing an original container **12** having at least one original removable closure device **20**, removing said original container **12**

from said removable closure device **20** and replacing said original container **12** with said first container **10** having at least one attachment device **30**. In a preferred embodiment at least one of said attachment devices **30** of said at least one first container **10** has the appearance of a carabiner. In this method the container **10** can be any container contemplated herein and the closure device **20** can be any closure device contemplated **20** herein.

[0041] While the preferred embodiments have been described and illustrated it will be understood that changes in details and obvious undisclosed variations might be made without departing from the spirit and principle of the invention and therefore the scope of the invention is not to be construed as limited to the preferred embodiment.

What is claimed is:

1. A device comprising a container having at least one open end, a second end, at least one closure device having a first and second end and at least one attachment device extending from an end of said closure device or an end of said container.
2. The invention according to claim 1 said attachment device comprising an elongated body member comprising at least a first end, a gate member having at least a first end, said gate member extending from said body member, said gate member oriented in close proximity to said end of said body member.
3. The invention according to claim 1 said attachment device comprising an elongated body member comprising a first end and a second end, a gate member having a first and a second end, one of said ends of said gate member being pivotally attached to one of said ends of said body member, the other of said ends of said gate member contacting said other end of said body member when said gate is in a closed position.
4. The invention according to claim 1 wherein said attachment device is integrally formed with said end of said closure device or an end of said container.
5. The invention according to claim 1 wherein said device comprises metal.
6. The invention according to claim 1 wherein said device comprises plastic.
7. The invention according to claim 1 wherein said attachment device is curvilinear.
8. The invention according to claim 1 wherein said attachment device is formed in the shape of a carabiner.
9. The invention according to claim 2 wherein said gate member is inwardly openable.
10. The invention according to claim 2 wherein said gate member is resilient.
11. The invention according to claim 1, wherein said container is cylindrical.
12. The invention according to claim 1 wherein said container is a bottle.
13. The invention according to claim 1 wherein said container is a tube.
14. The invention according to claim 1 wherein said container is a component of a device for containing other elements.
15. The invention according to claim 14 wherein said device is a flashlight and said container is a flashlight body.
16. The invention according to claim 1 wherein said container is a handle, said handle comprising at least a hollow portion.

17. The invention according to claim 1, said device further comprising a second closure device wherein said at least one attachment device is attached to an end of said second closure device.

18. The invention according to claim 1 wherein said attachment device is removably attachable to the container end opposite said open end.

19. The invention according to claim 1 wherein said attachment device is integrally formed with the container end opposite said open end.

20. The invention according to claim 15 wherein said attachment device is integrally formed on one end of said closure device.

21. The invention according to claim 20 wherein said attachment device is in the form of a carabiner.

22. A closure device having a first connecting end and a second end, said device further comprising at least one attachment device extending from said second end, said first connecting end adapted to connect said closure device to a container.

23. The invention according to claim 22 wherein said container is a flashlight body.

24. The invention according to claim 22 wherein said connecting end comprises a threaded mating means.

25. The invention according to claim 22 wherein said attachment device is curvilinear.

26. The invention according to claim 22 wherein said attachment means has the appearance of a carabiner.

27. The invention according to claim 22 wherein said closure device is adapted to replace the closure device of an existing container.

28. A method of replacing a closure device comprising the steps of providing at least one first closure device having at least one attachment device disposed thereon, providing a container having at least one original removable closure device, removing said at least one original closure device from said container, and replacing at least one of said original closure devices with at least said first closure device.

29. The method according to claim 28 wherein at least one of said attachment devices of said at least one first closure devices has the appearance of a carabiner.

30. A container having a first open end and a second end, at least one attachment device extending from said second end of said container, said open end adapted to accommodate a closure device.

31. The invention according to claim 30 wherein said container is a flashlight body.

32. The invention according to claim 30 wherein said open end comprises threaded mating means.

33. The invention according to claim 30 wherein said attachment device is curvilinear.

34. The invention according to claim 30 wherein said attachment means has the appearance of a carabiner.

35. The invention according to claim 30 wherein said container is adapted to replace the container of an existing device.

36. A method of replacing a container comprising the steps of providing at least one first container having at least one attachment device disposed thereon, providing an original container having at least one original removable closure device, removing said original container from said removable closure device, and replacing said original container with said first container.

37. The method according to claim 36 wherein at least one of said attachment devices of said at least one first container has the appearance of a carabiner.

38. A device comprising a container having at least one open end, at least one closure device adapted to form a releasable closure over said open end, and an attachment device, said attachment device comprising an elongated curvilinear body member comprising at least a first end, a gate member having at least a first end, said gate member extending from said body member, said at least one end of said gate member oriented in close proximity to said at least one end of said body member, wherein at least a portion of said elongated body member is integrally attached to said at least one closure device.

39. The device according to claim 38 wherein said attachment device comprises an elongated curvilinear body member comprising a first end and a second end, a gate member having a first and a second end, one of said ends of said gate member being pivotally attached to one of said ends of said body member, the other of said ends of said gate member contacting said other end of said body member when said gate is in a closed position.

40. The device according to claim 38 wherein said gate member is resilient.

41. A device comprising a container having at least one open end and a second end, at least one closure device adapted to form a releasable closure over said open end, and an attachment device, said attachment device comprising an elongated curvilinear body member comprising at least a first end, a gate member having at least a first end, said gate member extending from said body member, said at least one end of said gate member oriented in close proximity to said at least one end of said body member, wherein at least a portion of said elongated body member is integrally attached to said second end of said container.

42. The device according to claim 41 wherein said attachment device comprises an elongated curvilinear body member comprising a first end and a second end, a gate member having a first and a second end, one of said ends of said gate member being pivotally attached to one of said ends of said body member, the other of said ends of said gate member contacting said other end of said body member when said gate is in a closed position.

43. The device according to claim 41 wherein said gate member is resilient.

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