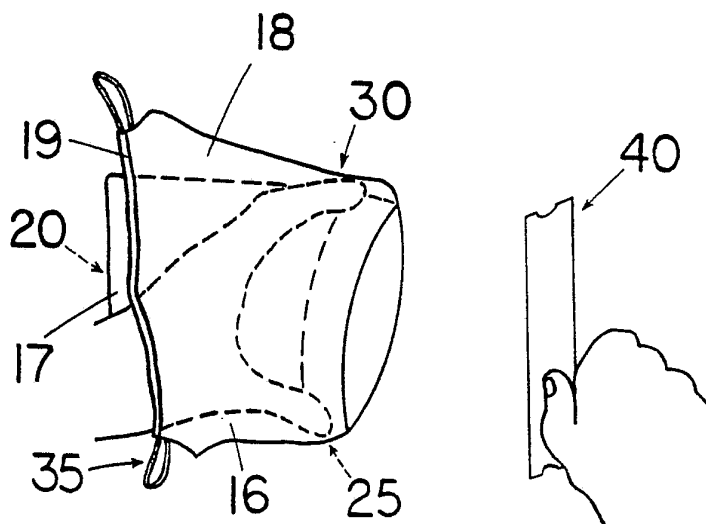




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>5</sup> : A01K 29/00, E01H 1/12</p>	<p>A1</p>	<p>(11) International Publication Number: WO 93/21759 (43) International Publication Date: 11 November 1993 (11.11.93)</p>
<p>(21) International Application Number: PCT/US92/03548 (22) International Filing Date: 29 April 1992 (29.04.92)  (71)(72) Applicant and Inventor: BOHN, Jamie [US/US]; 18415 Chatham Lane, Northridge, CA 91326 (US).  (74) Agents: BLAKELY, Roger, W., Jr. et al.; Blakely, Sokoloff, Taylor &amp; Zafman, 12400 Wilshire Boulevard, 7th Floor, Los Angeles, CA 90025 (US).  (81) Designated States: AU, CA, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE).</p>		<p>Published <i>With international search report.</i></p>

(54) Title: A CONTAINER DEVICE FOR THE COLLECTION OF WASTE



## (57) Abstract

The present invention is a container device. It is comprised of a flexible container (20) with a firm flexible collar (25) around the opening. The collar (25) is used to scoop the waste into the container (20). The collar (25) can open, close and manipulate the shape of the opening to the container (20). The device also has a protective skirt (30) of flexible material that surrounds it and protects the user and the container (25) from contamination. The skirt (30) contains a closure such as a draw string (35). After use, the skirt is pulled back over the container (20) and closed. The device is folded and inserted in a packaging tool (40). The packaging tool (40) is an enclosure for the container device that is made from a material of sufficient strength to assist in the collection of waste.

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## A Container Device for the Collection of Waste

## Background-Field of Invention

This invention relates to a container device for the collection of pet waste and other noxious materials.

## Background-Description of Prior Art

A primary application of this invention is the collection of dog waste which is a major problem in many parts of the world. For Example, it is estimated that in the United States there are more than 50 million dogs, that produce more than 5 thousand tons of waste per day. Most major municipalities have pet waste laws ("scooper laws") in an attempt to alleviate the some of this problem.

Unfortunately, no product exists that allows pet owners to conveniently, effectively, and efficiently clean-up after their pet (e.g., their dog). All devices designed heretofore to address this problem are ineffective and inconvenient to use.

Collecting devices such as Almog U.S. Patent 5,000,500 (1991) require two hands to operate. Since the opening must be big enough to envelop the waste, the device will be too large to conveniently carry in a pocket. It is also not very functional if the waste is deposited in more than one mass or the stool is loose.

The scooping device of Wetzler U.S. Patent 3,767,247 (1973) has a tubular type of sleeve that requires the whole hand to operate. Since the collected waste will not slide

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across the surface of the sleeve, collection requires that the device be periodically tilted to a vertical position to allow the waste to fall to the container. The length of the sleeve is used to trap the waste in the container but it also can cause collected waste to fall back out during the operation. The size of this device make it inconvenient to carry and expensive to make.

#### Objectives and Advantages

The objectives and advantages of my invention are:

1) It is a small, light-weight container device that will easily fit into clothing pockets, making it easy and convenient to carry.

2) It is a container device with the means of quickly and efficiently scooping or picking-up waste.

3) It is a container device capable of collecting almost any reasonable volume of waste.

4) It is a container device capable of easily picking up waste regardless of its configuration or number of masses.

5) It is a container device that protects the user from accidental contamination during and after utilization.

6) It is a container device that is easy to close and clean to carry after use.

7) It is a container device that includes the means for handling the movement of waste when scooping.

8) It is a container device that is inexpensive to manufacture and purchase.

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### Summary of the Invention

The present invention is a container device. It is comprised of a flexible container with a firm flexible collar around the opening. The collar is used to scoop the waste into the container. The collar is small and requires only two fingers to hold and operate it. The collar can open, close and manipulate the opening to the container. The device also has a protective skirt of flexible material that surrounds it and protects the user and the container from contamination. The skirt contains a closing means, such as a draw string or adhesive tape. After use, the skirt is pulled back over the container and closed. The device is folded and inserted in a packaging tool. The packaging tool is of sufficient strength to hold the waste in place when scooping and assist in it's collection.

### Drawing Figures

The drawings reflect different embodiments of the container device. In the drawings, closely related figures have the same number, but different alphabetic suffixes.

FIG. 1 shows a prospective view of a simple embodiment.

FIG. 2 shows an engineering view of a simple embodiment.

FIG. 3 shows a prospective view of a preferred embodiment.

FIG. 4 shows an engineering view of a preferred embodiment, unfolded.

FIG. 5 shows an engineering view of a preferred embodiment, flolded.

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FIGS. 6A to 6E show the operating instructions of the container device in a preferred embodiment.

FIG. 6A shows the removal of the container device from the packaging tool.

FIG. 6B shows the inserting of the hand between the container and the skirt to grasp the collar.

FIG. 6C shows the scooping-up of waste.

FIG. 6D shows the depositing of the packaging-tool into container.

FIG. 6E the shows closing of the container device.

FIG. 7 shows an engineering view of the collar with a depression.

FIG. 8 shows an engineering view of the collar with a protrusion.

#### Reference Numerals in Drawings

The letter A shall be used after the following reference numbers to designate the same element in the simple embodiment.

11 sealed edge	12 sealed edge	13 sealed edge
14 open edge	15 recessed finger	16 sealed edge
17 sealed edge	18 sealed edge	19 open edge
20 container	21 depression	22 protrusion
25 collar	30 skirt	35 closing means
40 packaging tool		

#### Description-FIGS. 1, 2, 3, 4, and 5.

FIGS. 1 and 2. In a simple embodiment, as shown in FIGS.

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1 and 2, the container device consists of a container 20A and a collar 25A and a packaging tool 40A. The container 20A consists of two equal rectangular pieces of flexible material closed or sealed together at the edges on three sides 11A, 12A, 13A. It is open on the fourth side 14A to create a pocket into which waste is collected. The collar 25A is comprised of two flat rectangular strips of a firm, flexible material which are respectively bonded or affixed to opposite sides, at the edge of the open side 14A of the container 20A. The strips form a collar-like band at the opening of the container 20A through which the waste passes. The length of the collar 25A is parrallel and the width is perpendicular to the open end 14A of the container 20A. The length of the collar 25A is significantly greater than the width. The collar 25A has opposite ends with recessed finger areas 15A at each end for gripping. The length and width of the collar 25A are such that the recessed finger areas 15A can be gripped between a thumb and a finger and the collar 25A can be held and operated with one hand. The opposite sides may be bonded or affixed to the inside or outside of the container 20A. The collar 25A may be made of any firm flexible material capable of scooping up waste and flexible enough to repeatedly bend without cracking or breaking. The container 20A is folded around the collar 25A and inserted into the packaging tool 40A. The packaging tool 40A is a rigid chipboard sleeve which surrounds the container device and is open at the ends. It contains

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recessed cut-out areas at the ends to facilitate the removing of the device.

FIGS. 3,4, and 5. In a preferred embodiment, the container device comprised of a container 20, a collar 25, a skirt 30, a closing means 35 and a packaging tool 40. In this preferred embodiment, as shown in FIGS. 3,4, and 5, the container device is constructed from two rectangular sheets of flexible material, closed or sealed together on three sides 16,17,18 and open on the fourth side 19. The material is folded part way inside out to form a container 20 and a outer skirt 30. A collar 25 is constructed from a single strip of a firm flexible material which is folded in half to form two elongated sides. It is connected at the ends and is bonded to the material at the fold to form the opening to the container. The collar 25 transverses the opening to the container 20 and forms a collar-like band through which waste passes into the container 20. The length of the collar 25 is parallel and the width is perpendicular to the opening to the container 20. The collar 25 has opposite ends with recessed areas 15 for gripping. The length and width of the collar 25 are such that the opposite ends can be gripped between a thumb and finger of the users hand. The collar 25 is bonded or affixed in the vertical center and below the horizontal center of the material (away from the open end). This placement causes the skirt 30 to be longer than the container 20. A draw-string closing means 35 is added to the end of the open side 19 of the material.

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In this embodiment, the material is wider than the collar 25. This allows space between the outer edges of the collar 25 and the sealed edges 16,18 of the material for the user to insert his hand and increases the load capacity of the container. The material is folded around the collar 30 and inserted into the packaging tool 40. The packaging tool 40 is an rigid chipboard sleeve which surrounds the device and is open at the ends. It contains recessed cut-out areas at the ends to make it easier to remove the device.

FIGS. 7 and 8. These figures show additional features which may be incorporated in the collar of the container device. The two elongated sides that form the collar will at times have a tendency to bend together instead of away from each other when inward pressure is applied to the ends of the collar. This will necessitate separating the sides slightly before applying inward pressure. To facilitate this process the collar may incorporate a depression 22 (Fig. 7) or a protrusion 22 (Fig. 8). Either of these configurations will offset the edges of the collar and make it easier for the user to grip and separate the sides.

There are a variety of ways to manufacture this invention. It may be made of a wide variety of materials (e.g., paper, plastic, latex, elastomeric materials, etc.). It may be constructed from a single piece of material which is folded and or connected on three sides and open on the fourth side. It may also be constructed from two separate

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pieces of material which are connected on three sides and open on the fourth. The collar 25 may be affixed to the inside or the outside of the material. The material may be wider than, narrower than or the same width as the collar 25. The material may be bonded or affixed to the collar 25 flat or gathered. The material may be gusseted. The collar 25 may be affixed before or after the material has been folded to form the container 20 and the skirt 30, when both are constructed from the same material. The collar 25 may be made from a single piece of material which is folded and which may or may not be connected at its open ends or two separate pieces which are generally affixed adjacent to each other and which may or may not be connected at the ends. The collar 25 may incorporate a variety of designs to make grasping and using easier (e.g., recesses, protrusions and depressions, etc.). The collar 25 may be made from any number of materials that will function as described (e.g., chipboard, plastic, latex, metal, elastomeric materials, etc.). This invention may be constructed with or without an outer skirt 30. The skirt 30 may be constructed from the same material as the container 20 or from a separate material. The skirt 30 may be constructed to be shorter, longer, or the same size as the container 20. This invention may or may not contain a closing means 35. The closing means 35 may be any of a wide variety of means (e.g., draw-string, draw-tape, adhesive, wire tie, etc.). The packaging tool 40 may be any one of

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many types of packaging means that will function as described (e.g., sleeve, box, wrapper, etc.). It may be constructed from any of a variety of materials (plastic, chipboard, elastomeric materials, etc.). The container device may only contain a tool of sufficient strength to stop the movement of waste without having packaging capability. The packaging and the scoop assist tool may be separate items. The invention and all the parts may be constructed in a variety of sizes.

These examples illustrate some of the varying embodiments of this invention. From this description, a number of advantages of the present container device become evident:

- 1) The collar makes the device able to be made small, light-weight, and easy to carry.
- 2) The collar allows the user to quickly open, close and manipulate the opening of the container to facilitate collection.
- 3) The collar allows the user to collect the waste without actually touching it.
- 4) The skirt effectively protects the user and the outside of the container from accidental contamination when in use.
- 5) The packaging tool provides an effective means to stop or compensate for the movement of the waste.
- 6) The draw-tape or draw-string closure provides a quick, effective way to enclose the waste in the container and transport it for disposal.

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7) The device is capable of holding a significant amount of waste.

Operation - FIGS. 6A to 6E

To operate the invention in a simple embodiment:

- 1) The user removes the container device from the packaging tool 40 and unfolds it.
- 2) The user holds the container device by the collar 25 and squeezes inward at the ends to open the container. The amount of pressure controls the width of the opening.
- 3) The user holds the packaging tool 40 in one hand to stop the waste from moving and the container 20 in the other, and scoops the waste into the container 20, using the collar 25.
- 4) The user deposits the waste soiled packaging tool 40 into the container 20 and may deposit the container 20 into the nearest waste receptacle.

To operate the container device in a preferred embodiment:

- 1) FIG. 6A. The user removes the container device from the packaging tool 40 and unfolds it.
- 2) FIG. 6B. The user places his hand between the container 20 and the skirt 30 and grasps the collar 25 at the recessed finger areas 15. The user squeezes inward at the ends of collar 25 to open container 20. The user controls the size of the opening with pressure on the collar 25.
- 3) FIG. 6C. The user uses the packaging tool 40 in one

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hand to stop the waste movement, and the container device in the other hand to scoop the waste into the container 10, with the use of the collar 25.

4) FIG. 6D. The user deposits the waste soiled packaging tool 40 into the container 20.

5) FIG. 6E. The user releases the inward pressure on the collar, then uses his free hand pull the skirt 30 back over the top of the container 20 and collar 25, and uses the draw-string to close the container.

6) The user may deposit the container device into the nearest waste receptacle.

This description shows how conveniently and effectively this invention this invention accomplishes all the objectives previously stated.

1) It is small light-weight and easy to carry in one's clothing pockets.

2) It is quick and easy to use.

3) It is capable of holding large volumes of waste.

4) It allows the user to modify the shape of the opening to compensate for configuration of the waste.

5) It protects the user from contamination during and after use.

6) It is quick and easy to close and carry for disposal.

7) It provides the means of stopping and handling the movement of waste in a scooping situation.

8) It is easy and inexpensive to manufacture.

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Although the above description contains many specificities, these do not limit the scope of the invention, but merely provide illustrations of some of the preferred embodiments of the invention. For example, the collar could be made from an extruded plastic, die cut for shape and having enough memory to cause it to open when removed from the packaging tool.

I claim:

1) A container device comprising: a container made of a flexible material having an opening; a collar affixed at said opening for engaging and collecting waste into said container through the opening; wherein said collar is comprised of two elongated sides of a firm flexible material, said sides are generally affixed parallel and adjacent to each other and transverse to said opening, the length of said sides is parallel to and the width is perpendicular to said opening, the length of said sides is significantly greater than the width, said sides having opposite ends, the length and width of said sides being such that said opposite ends can be gripped between a thumb and a finger and the collar can be operated with one hand so that inward pressure applied to said opposite ends by said thumb and finger can cause said sides intermediate to said ends to move away from each other to open said container, whereby the user can grasp the collar and use the collar to scoop waste into the container through said opening.

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- 2) The container device of claim 1 wherein said collar further includes a recessed area in each of said opposite ends to assist in gripping said collar.
- 3) The container device of claim 1 wherein said collar further includes a protrusion to assist in separating said opposite sides.
- 4) The container device of claim 1 wherein said collar further includes a depression to assist in separating said opposite sides.
- 5) The container device of claim 1 wherein said container device further includes a packaging tool to assist in the collection of waste, said packaging tool being comprised of material of sufficient strength to assist in the scooping of waste, said material being proportioned to receive said container and collar therein.
- 6) The container device of claim 1 wherein said container device further includes a skirt, said skirt consisting of flexible material which goes around the outside of said container and is joined to said container at said opening.
- 7) The container device of claim 6 wherein said skirt further includes a closing means.
- 8) The container device of claim 6 wherein said container and said skirt are both constructed from the same piece of flexible material.

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9) The container device of claim 7 wherein said closing means is a draw-tape closure.

10) A container device comprising: a flexible container with a closed end and an open end, said flexible container comprising a flexible bag which is folded part way inside out over itself to form a container with an opening at the fold and an outer skirt; a collar affixed at said opening for engaging and collecting waste into said container through said opening, said collar being comprised of two elongated sides of a firm flexible material which are generally affixed parallel to and adjacent to each other and extending transversely to said opening, the length of said sides being parallel to and the width perpendicular to said opening, the length of said sides being significantly greater than the width, said sides having opposite ends, the length and width of said sides being such that said opposite ends can be gripped between a thumb and a finger and the collar can be operated with one hand so that inward pressure applied to said opposite ends by said thumb and finger can cause said sides intermediate to said ends to move away from each other to open said container, whereby the user can grasp the collar and use the collar to scoop waste into the container through said opening.

11) The container device of claim 10 wherein said collar further includes a recessed area in each of said opposite ends to assist in gripping said collar.

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12) The container device of claim 10 wherein said collar further includes a protrusion to assist in separating said opposite sides.

13) The container device of claim 10 wherein said collar further includes a depression to assist in separating said opposite sides.

14) The container device of claim 10 wherein said outer skirt further includes a closing means at the open end.

15) The container device of claim 10 further including a packaging tool comprised of a material of sufficient strength to assist in the collection of waste, said material being proportioned and arranged to receive said container and collar therein.

16) A container device comprising: a container made from a flexible material having an opening; a skirt consisting of flexible material which goes around the outside of container and is joined to said container at said opening; a collar affixed at said opening for engaging and collecting waste into said container through said opening; wherein said collar is comprised of two elongated sides of a firm flexible material, said sides are generally affixed parallel and adjacent to each other and transverse to said opening, the length of said sides is parallel to and the width is perpendicular to said opening, said sides having opposite ends, the length and width of said sides are such that said

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opposite ends can be gripped between a thumb and a finger and the collar can be operated with one hand so that inward pressure applied to said opposite ends can cause said sides intermediate to said ends to move away from each other to open said container, whereby the user can grasp the collar to scoop waste into the container through said opening.

17) The container device of claim 16 wherein said collar further includes a recessed area in each of said opposite ends to assist in gripping said collar.

18) The container device of claim 16 wherein said collar further includes a protrusion to assist in separating said opposite sides.

19) The container device of claim 16 wherein said collar further includes a depression to assist in separating said opposite sides.

20) The container device of claim 16 wherein said skirt further includes a closing means.

21) The container device of claim 16 wherein said container device further includes a packaging tool to assist in the collection of waste, said packaging tool being comprised of a material of sufficient strength to assist in the scooping of waste, said material being proportioned and arranged to receive said container and collar therein.

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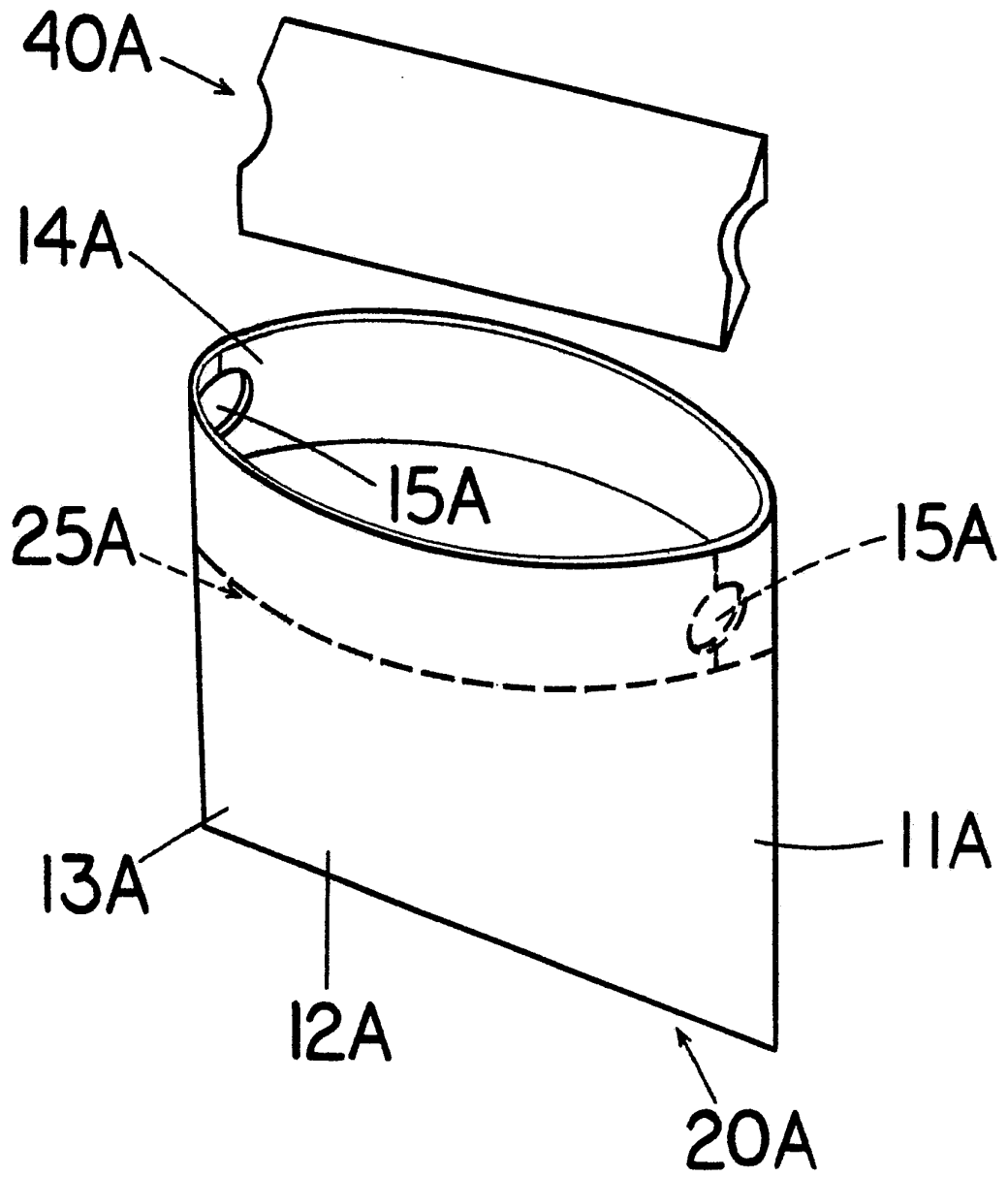


FIG. 1

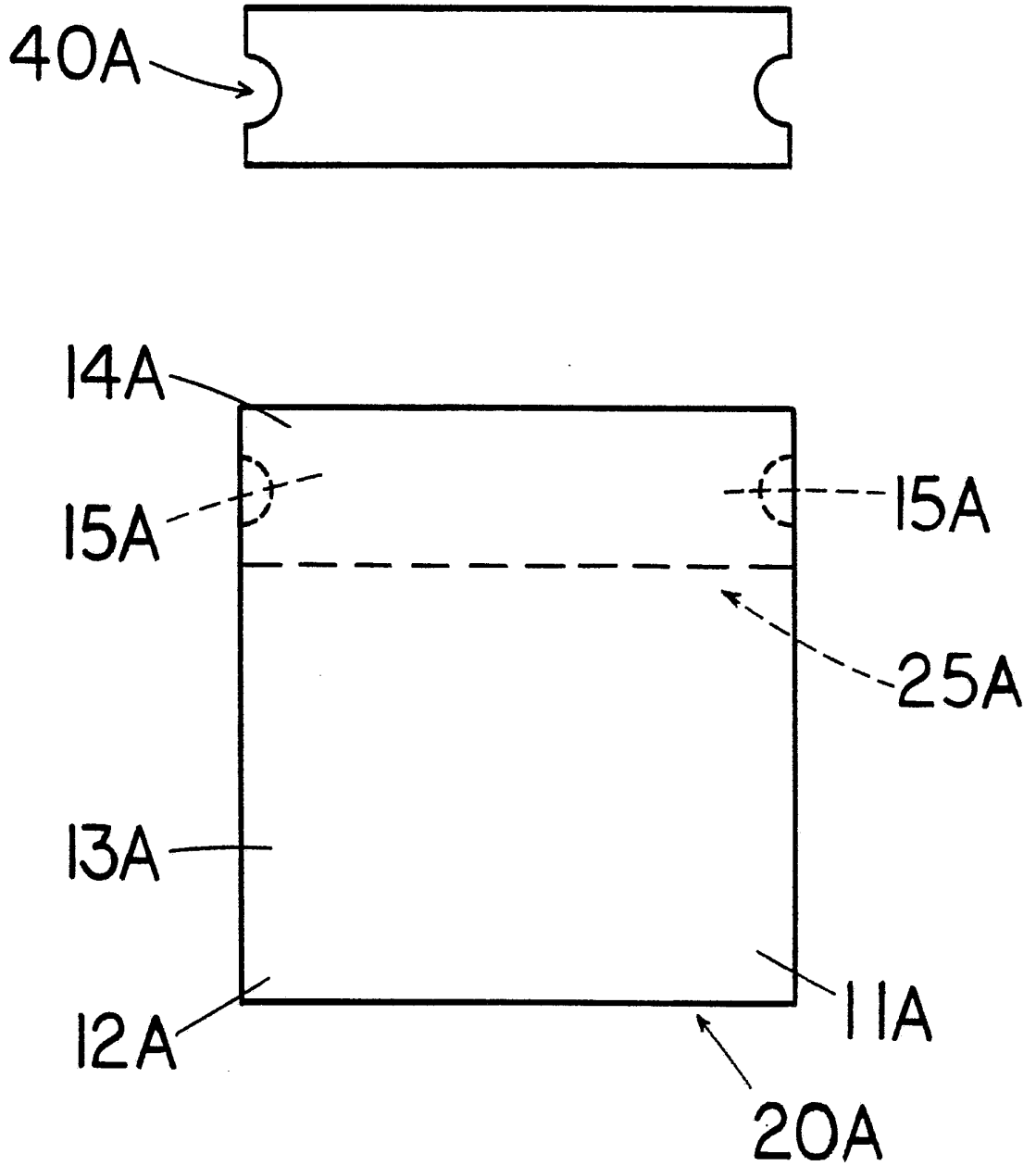


FIG. 2

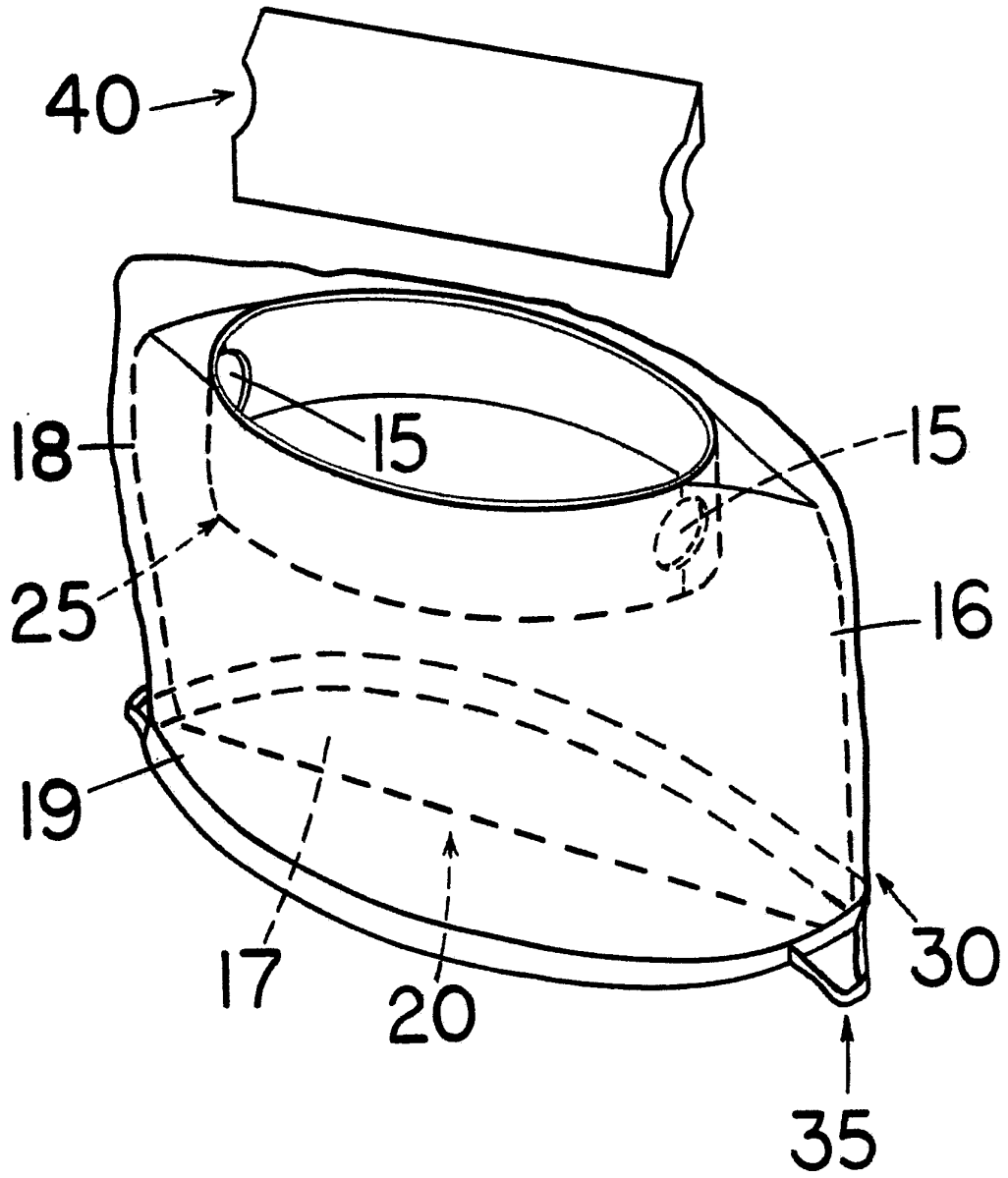


FIG. 3

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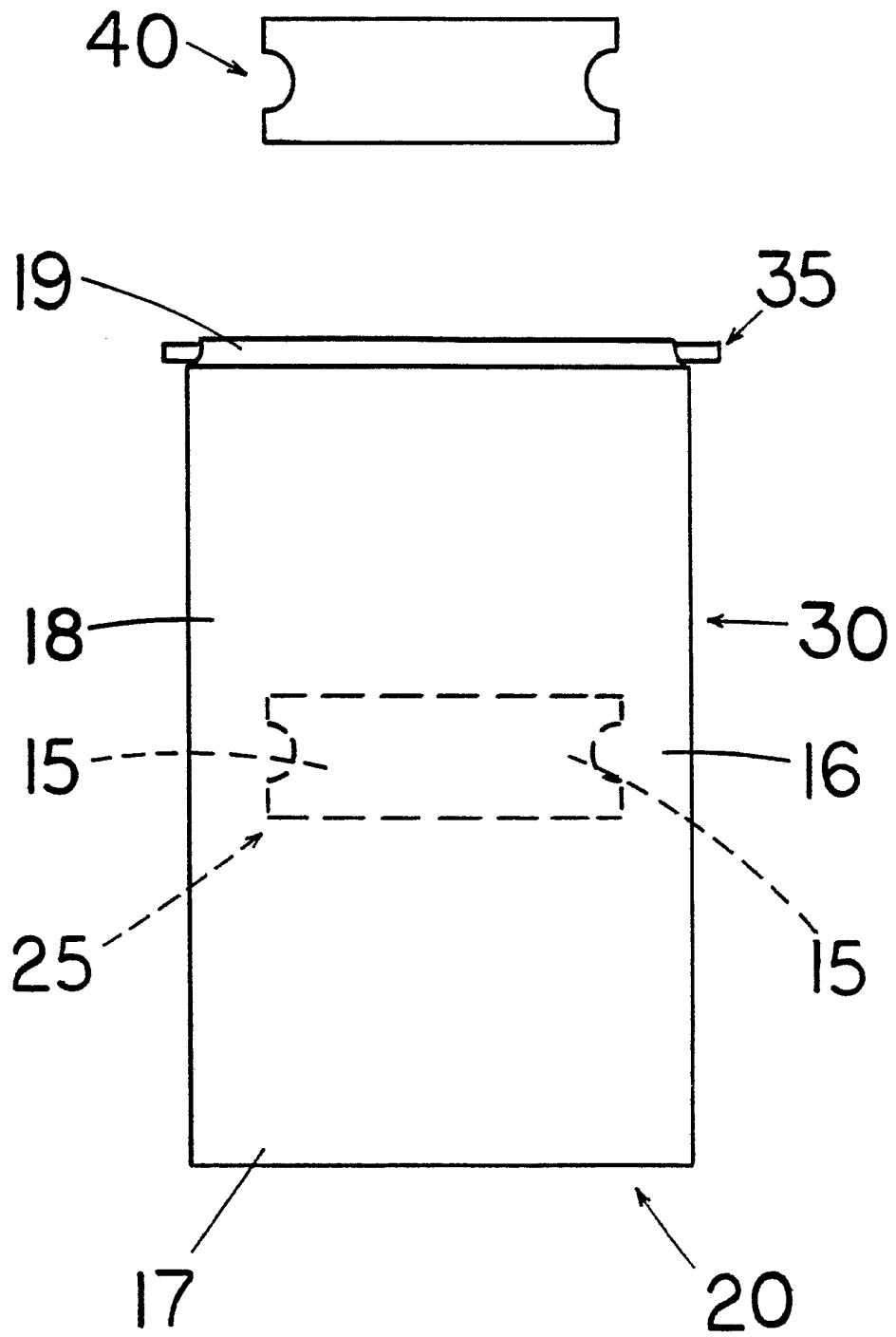


FIG. 4

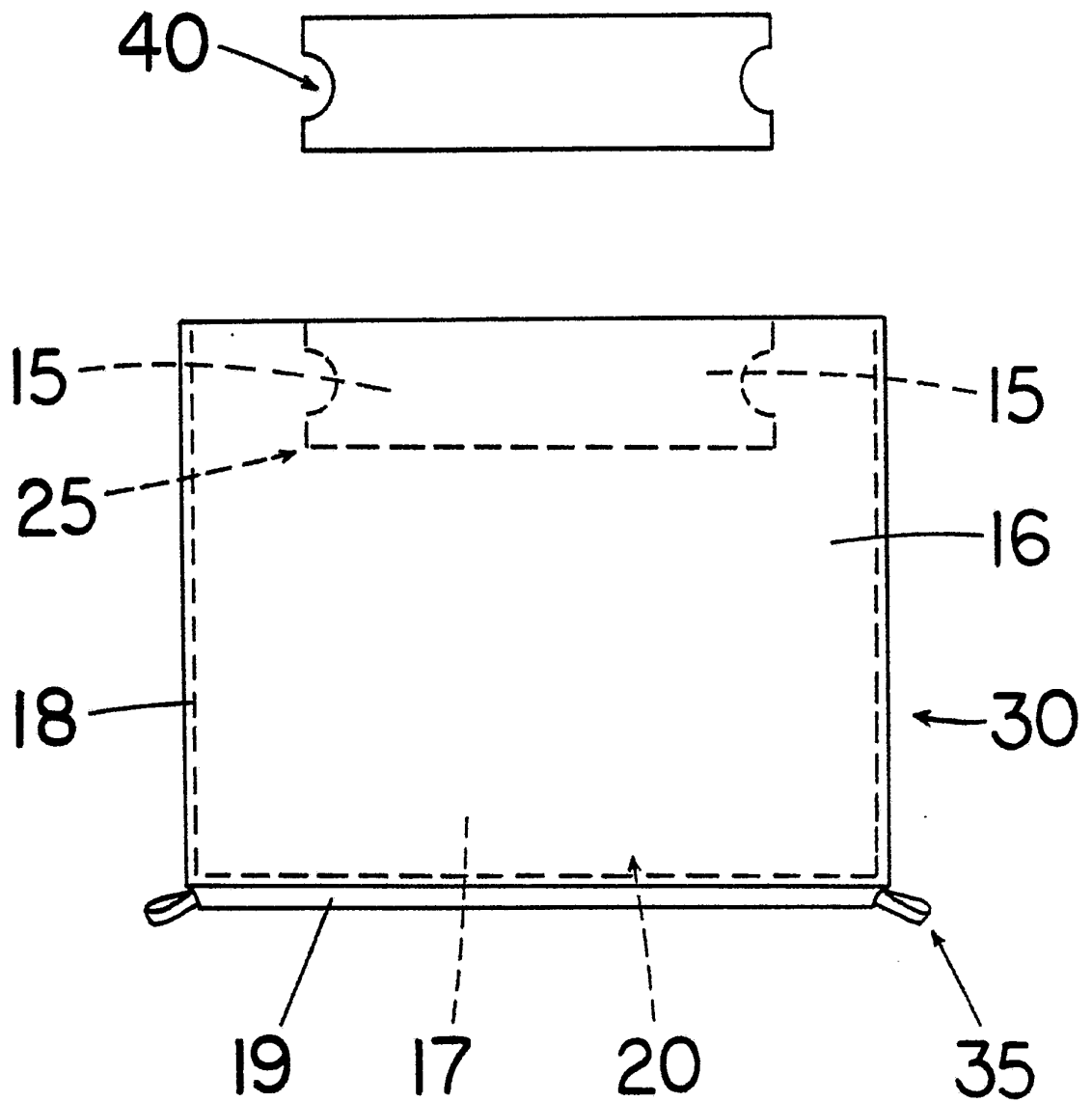


FIG. 5

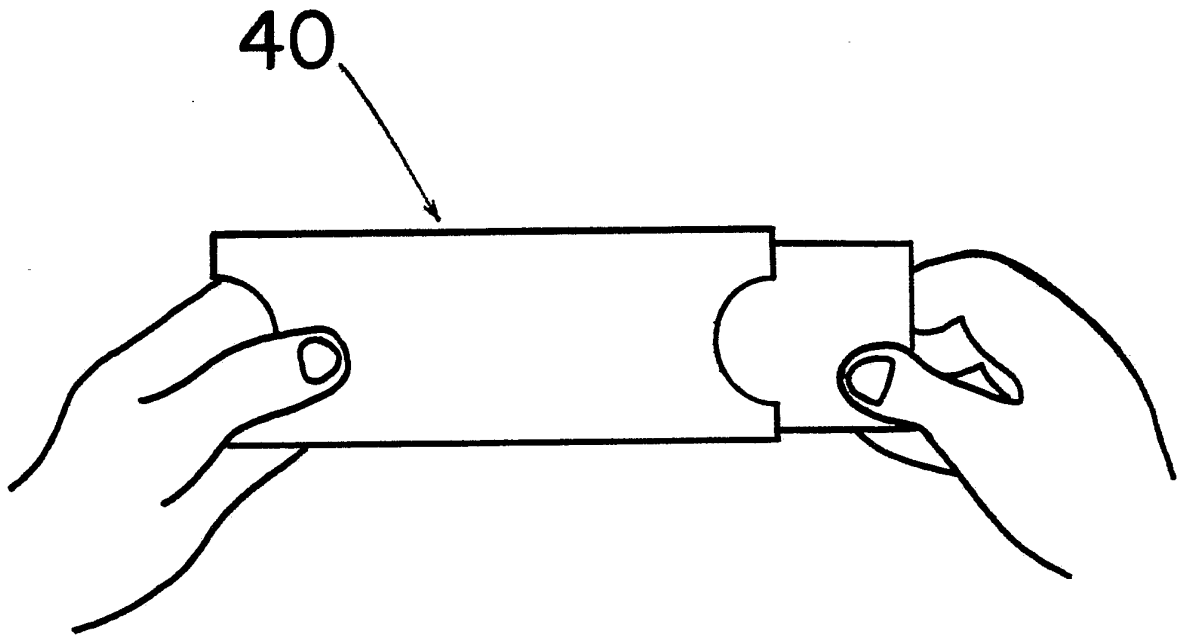


FIG. 6A



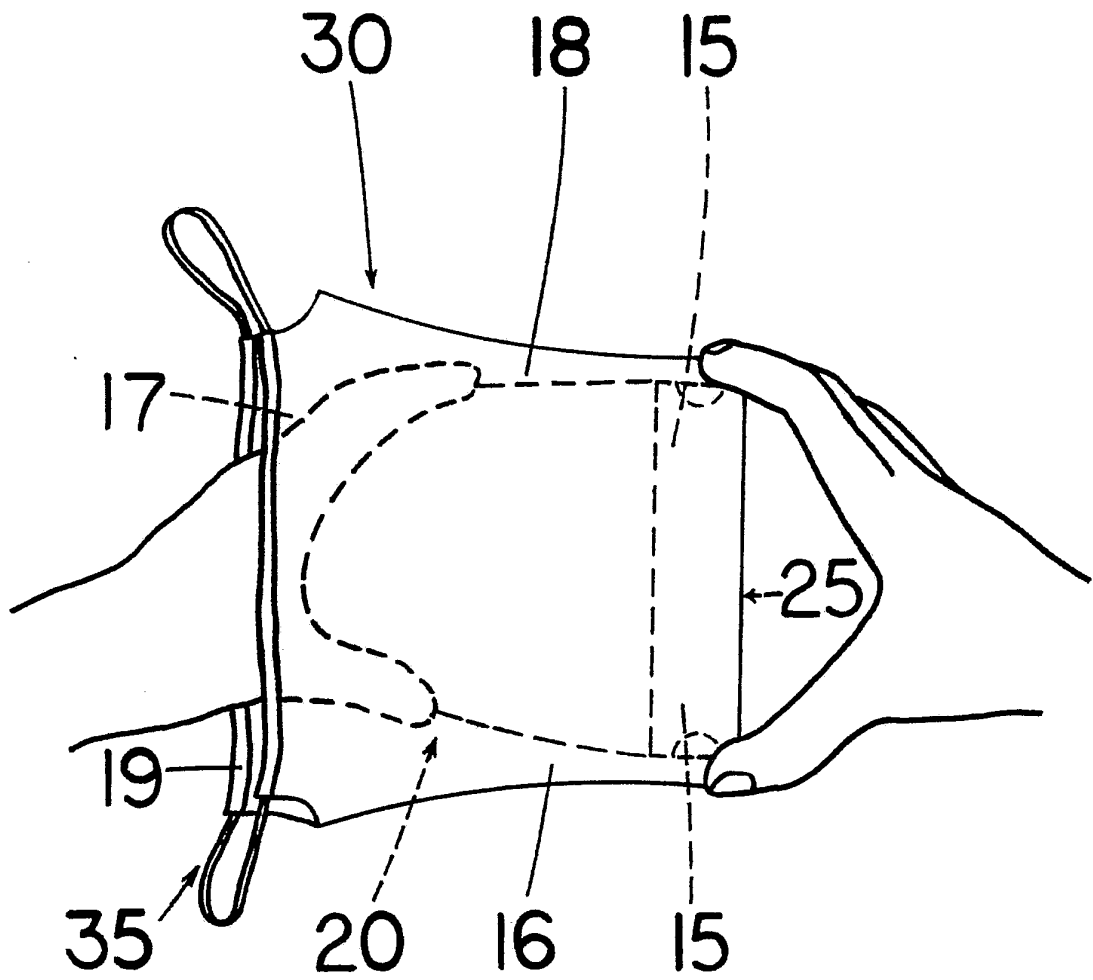


FIG. 6B

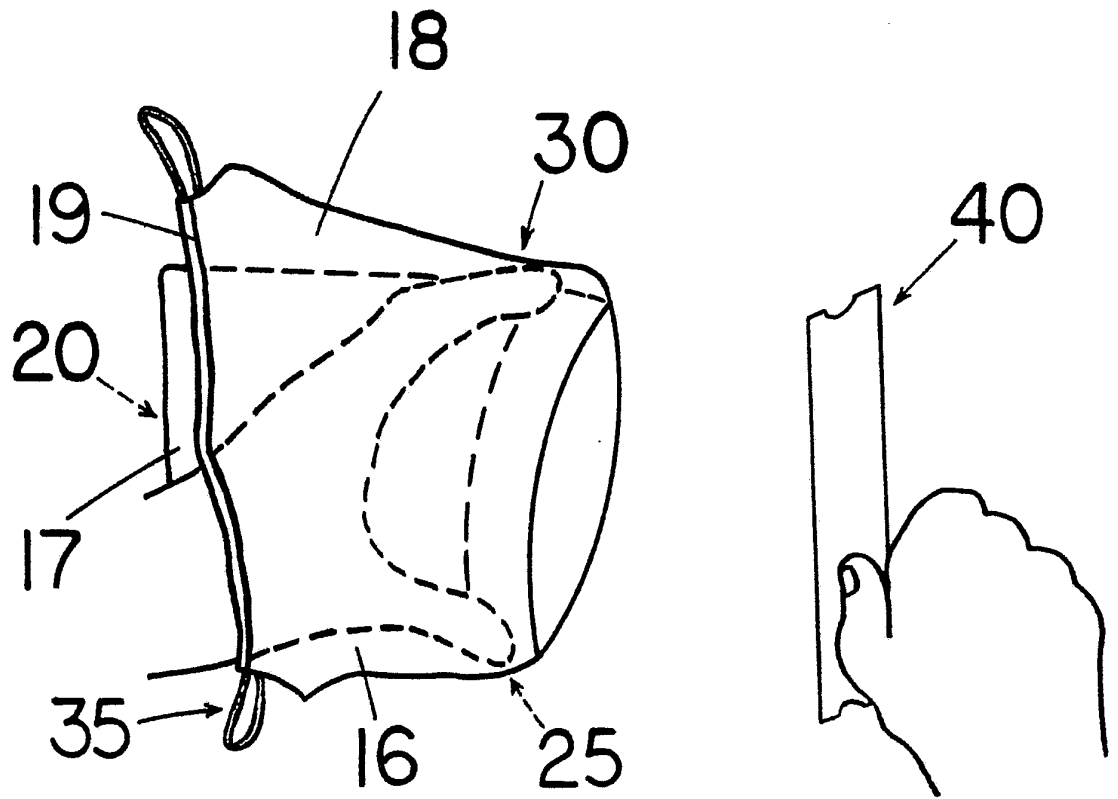


FIG. 6C

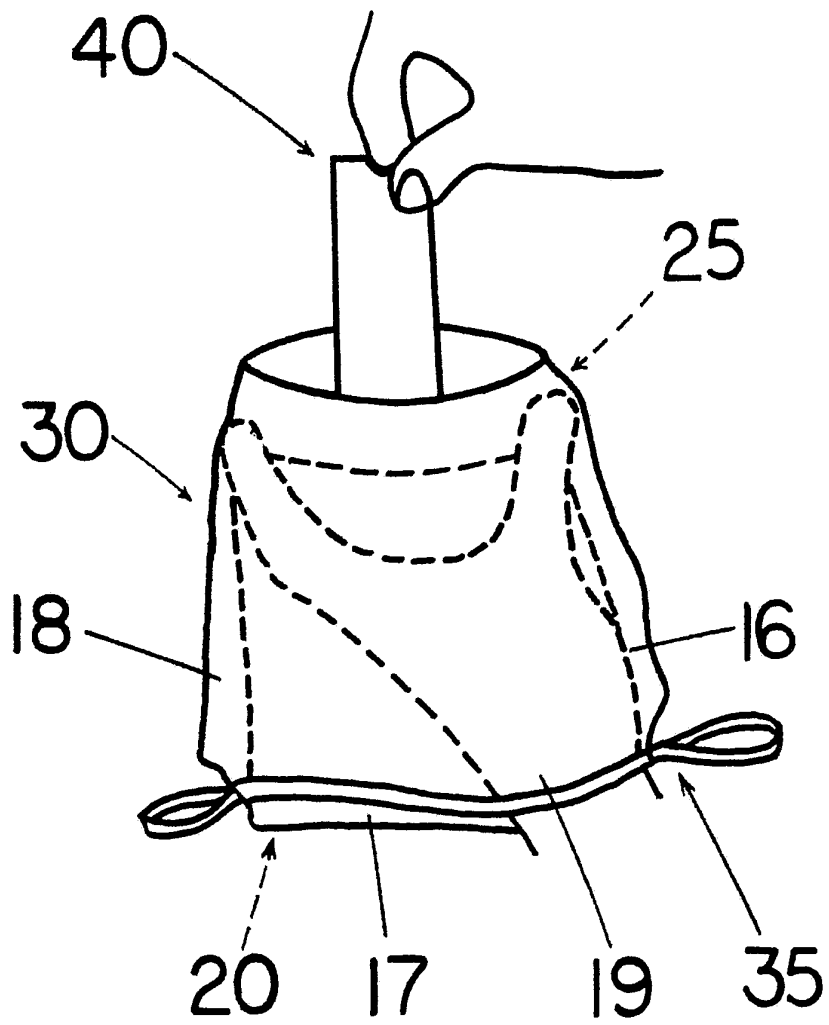


FIG. 6D

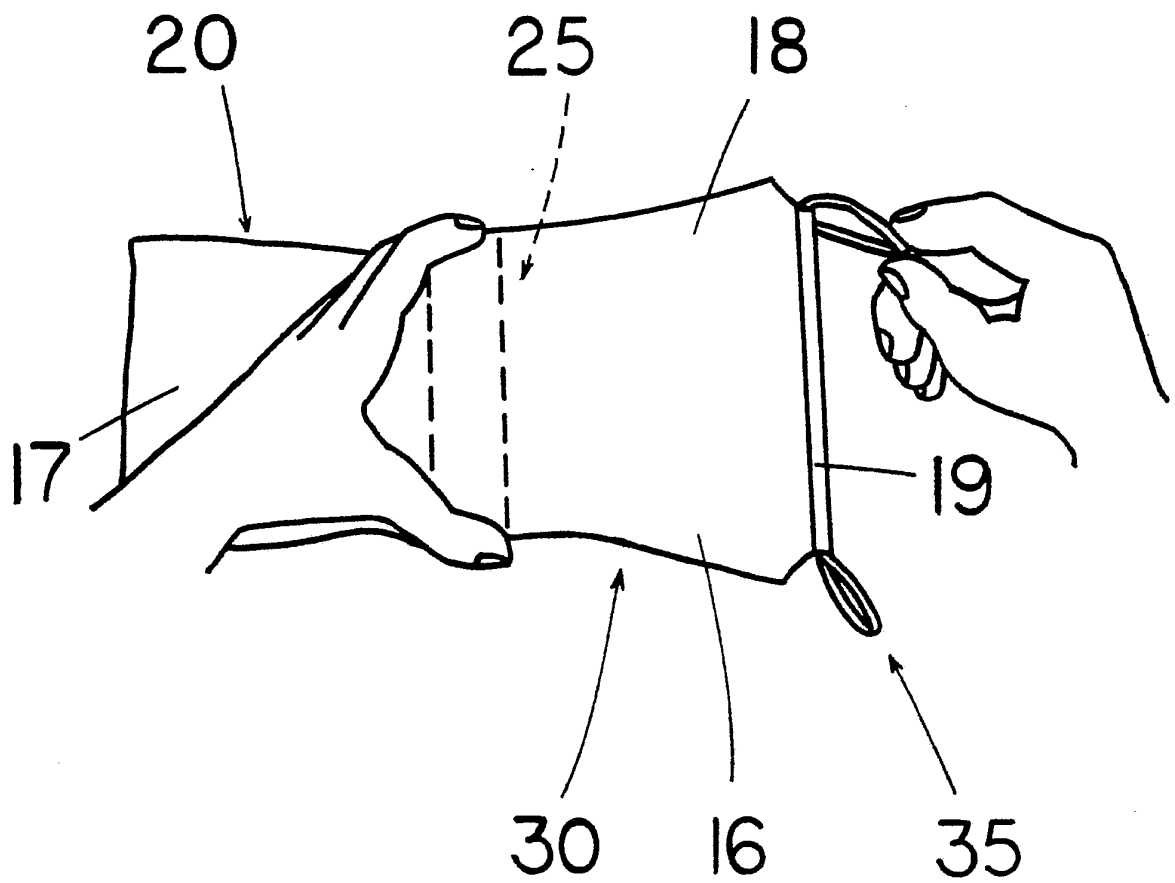


FIG. 6E

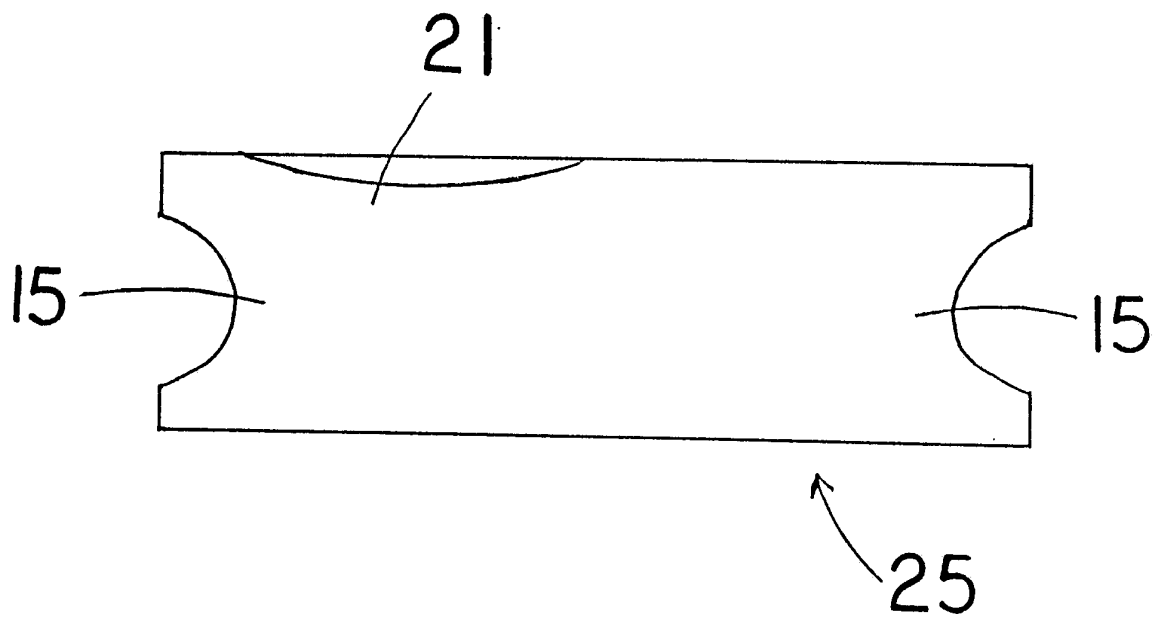


FIG. 7

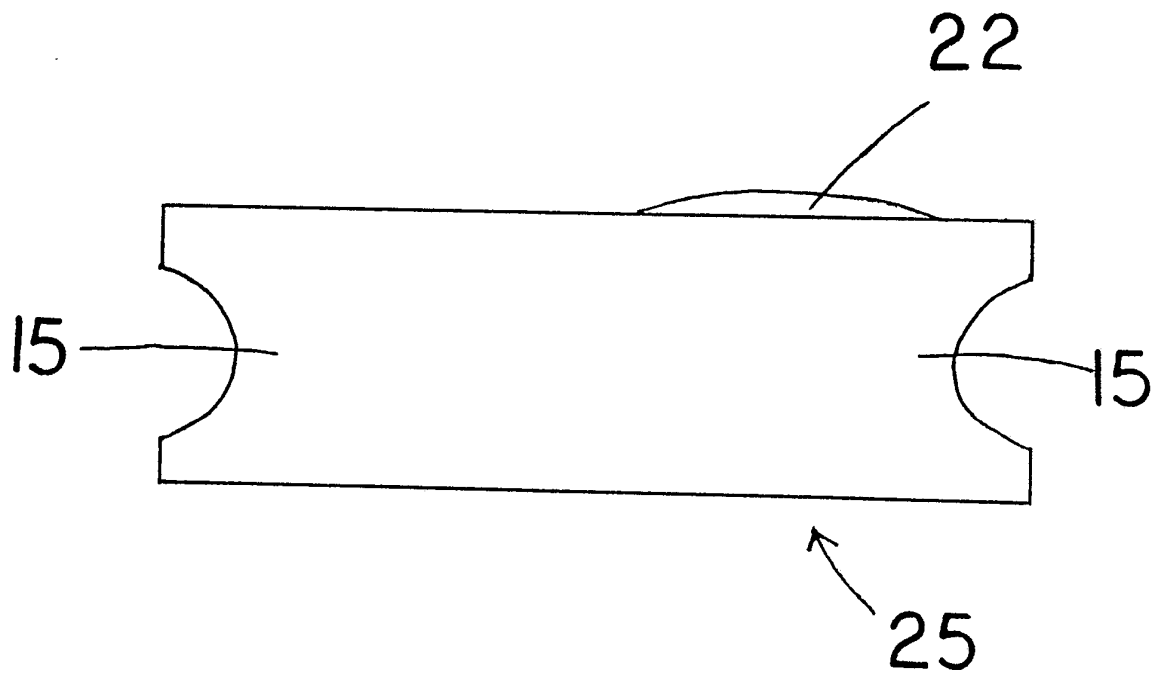


FIG. 8

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US92/03548

**A. CLASSIFICATION OF SUBJECT MATTER**IPC(5) :A01K 29/00; E01H 1/12  
US CL :294/1.3, 25; 15/104.8, 257.1

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. : 294/1.1, 1.4, 1.5, 55, 131; 15/227, 257.4, 257.6, 257.7;  
119/95, 161, 165, 168; 206/223, 496; 248/99; 383/4, 33, 35

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**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, 5,000,500 (ALMOG) 19 March 1991, see total document.	1-21
X	US, A, 4,845,781 (STRICKLAND ET AL) 11 July 1989, see total document.	1
X	DE, A, 3,518,908 (HENNEMANN) 27 November 1986, see total document.	1
Y	US, A, 4,752,093 (HABER ET AL) 21 June 1988, see total document.	1-21
Y	US, A, 4,909,553 (HANTOVER) 20 March 1990, see total document.	5,15,21
Y	US, A, 4,138,153 (BROWN) 06 February 1979, see total document.	6-8,10-21
Y	US, A, 4,741,565 (BAGG) 03 May 1988, see total document.	9
A	US, A, 3,767,247 (WETZLER) 23 October 1973.	
A	US, A, 4,103,952 (THOMPSON) 01 August 1978.	
A	US, A, 4,230,354 (CLARAS) 28 October 1980.	



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Date of the actual completion of the international search

13 AUGUST 1992

Date of mailing of the international search report

25 SEP 1992

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US92/03548

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4,838,327 (AMBLER ET AL) 13 June 1989.	