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(71) Applicant: **Wholepack Inc.**
Taichung City 407 (TW)

(72) Inventor: **Chen, Lien-Chuan**
407 Taichung City (TW)

(74) Representative: **Becker Kurig Straus**
Bavariastrasse 7
80336 München (DE)

(54) Disposable cup lid

(57) A disposable cup lid (10) made of plastics using injection molding techniques and adapted for covering a drinking cup is disclosed to include a coupling rim (11) for attaching to a drinking cup, a mouthpiece area (12), a tab (14), a series of dentations (13) connected between the mouthpiece area (12) and the tab (14), and two stop lugs (15) downwardly extended from the bottom wall at two opposite lateral sides relative to the tab (14). The tab (14) is pressable downwardly by an external force to break the series of dentations (13) in opening the mouthpiece area (12) and stoppable by the stop lugs (15) in the open position.

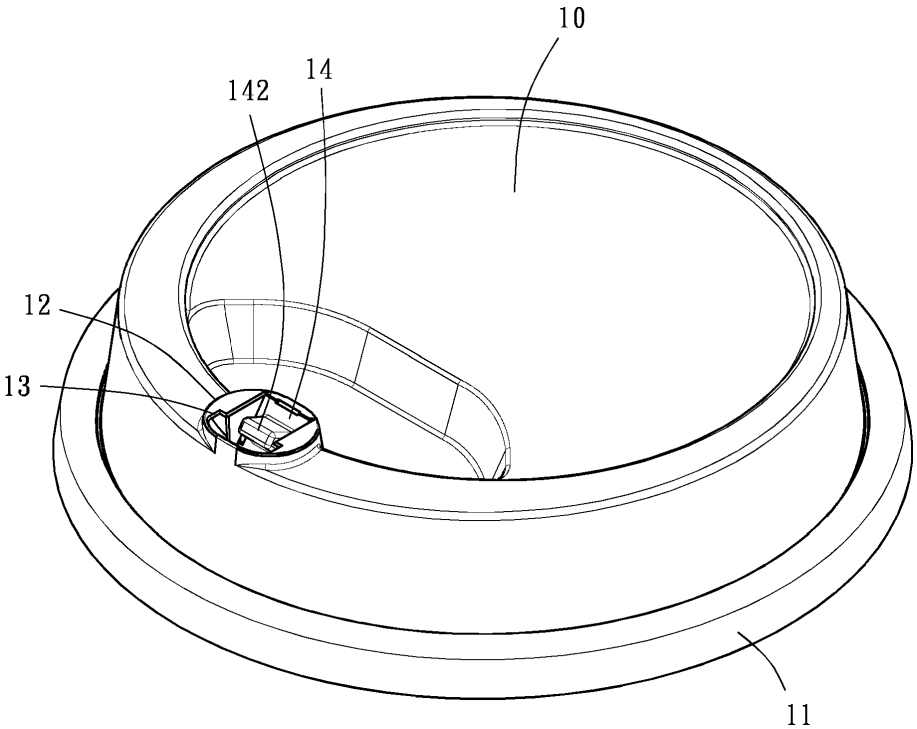

FIG. 4

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a lid for drinking cup and more particularly, to a disposable cup lid made of plastics using injection molding techniques.

2. Description of the Related Art

[0002] Most conventional disposable cup lids are made of plastics using vacuum suction molding techniques. Vacuum suction molding techniques impart certain restrictions on the design of lid shape.

[0003] Commercial disposable hot drinking (coffee) cup lids generally provide a series of dentations on the mouthpiece area, defining a tab that can be pressed down or lifted to open the mouthpiece area. The tab provides a stem. For opening a downwardly pressing design of tab, the user can press down the stem of the tab to break the series of dentations, thereby opening the tab downwardly from the mouthpiece area to provide a beverage outlet. Alternatively, for opening an upwardly lifting design of tab, the user can lift the stem of the tab to break the series of dentations, thereby opening the tab upwardly from the mouthpiece area to provide a large opening in the mouthpiece area. Further, in an upwardly lifting design of tab, the disposable cup lid provides a retaining groove for receiving the stem after the tab is opened. In a downwardly pressing design of tab, no positioning means is provided inside the disposable cup lid for securing the tab in the open position. In this case, the tab may easily be moved back by the beverage to close the beverage outlet, interrupting the user from drinking the beverage. Further, an upwardly lifting design of tab has the disadvantage of excessively large opening may lead to a scalding injury to the user's tongue.

SUMMARY OF THE INVENTION

[0004] The present invention has been accomplished under the circumstances in view. It is the main object of the present invention to provide a disposable cup lid, which is made of plastics using injection molding techniques, having a tab disposed in a mouthpiece area and breakable by an external force and a tab positioning structure adapted for holding the tab in an open position to facilitate drinking.

[0005] To achieve this and other objects of the present invention, a disposable cup lid is made of plastics using injection molding techniques and adapted for covering a drinking cup, comprising a coupling rim for attaching to a drinking cup, a mouthpiece area, a tab, a series of dentations connected between the mouthpiece area and the tab, and at least one stop lug downwardly extended from a bottom wall thereof adjacent to the series of dentations. The tab is pressable downwardly by an external force to break the series of dentations in opening the mouthpiece area and stoppable by the at least one stop lug in an open position. Thus, the user can sip the beverage simply by pressing the tab. Further, by means of the at least one stop lug to stop the tab in the open position, the opening thus formed in the mouthpiece area is maintained unchanged, and the tab is prohibited from being moved back by the beverage to close the opening.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006]

FIG 1 is an oblique top elevational view of a disposable cup lid in accordance with the present invention.
FIG 2 is an oblique bottom elevational view of the disposable cup lid in accordance with the present invention.
FIG 3 is an enlarged view of a part of FIG 2.
FIG 4 is an oblique top elevation of the present invention, illustrating the tab pressed down.
FIG 5 is an oblique bottom elevation of the present invention, illustrating the tab pressed down.
FIG 6 is an enlarged view of a part of FIG 5.

DETAILED DESCRIPTION OF THE INVENTION

[0007] The advantages and features of the present invention will be fully understood by reference to the following two examples in conjunction with the accompanying drawings.

[0008] Referring to FIG 1, a disposable cup lid 10 in accordance with the present invention is shown. The disposable cup lid 10 is a circular covering made of plastics using injection molding techniques and adapted for covering a drinking cup, comprising a coupling rim 11 for attaching to a drinking cup (not shown), a mouthpiece area 12, a tab 14 connected to the mouthpiece area 12 by breakable connection means, for example, a series of dentations 13, and two stop lugs 15 downwardly extended from the bottom wall thereof at two opposite lateral sides relative to the tab 14. The tab 14 can be forced downwardly by an external force to break the series of dentations 13 in opening the mouthpiece area 12 to the extent where the tab 14 is stopped by the stop lugs 15 (see FIG 6).

[0009] The tab 14 comprises two outwardly protruding stop portions 141 bilaterally disposed adjacent to the periphery of the disposable cup lid 10. Further, each stop lug 15 has a beveled guide portion 151 located on the bottom side thereof, and a positioning portion 152 upwardly extended from the back side of the beveled guide portion 151. The two outwardly protruding stop portions 141 of the tab 14 respectively extend over the two stop lugs 15 and engaged with the positioning portions 152 of the two stop lugs 15.

[0010] Further, the tab 14 comprises a stem 142 up-

wardly extended from the top side thereof to facilitate pressing.

[0011] According to the present preferred embodiment, the tab 14 is substantially shaped like a mushroom, having a relatively narrower body, which extends upwardly and terminates in the stem 142, and a relatively wider head, which forms the two outwardly protruding stop portions 141; the two stop lugs 15 are located on the two opposite lateral sides of the relatively narrower body of the tab 14.

[0012] When using the cup lid 10, the user simply needs to press the stem 142 with one finger, thereby breaking the series of dentations 13 and forcing the tab 14 to turn downwards. At this time, the stop portions 141 of the tab 14 will be moved over the respective beveled guide portions 151 of the stop lugs 15 into engagement with the respective positioning portions 152 of the stop lugs 15 to hold the tab 14 in an open position, thereby opening the mouthpiece area 12.

[0013] By means of the stop lugs 15 to stop the tab 14 in the open position at a predetermined angle relative to the mouthpiece area 12, the tab 14 is prohibited from being forced back by the beverage to narrow the opening and can stop the beverage from flowing out of the disposable cup lid 10. Thus, when the tab 14 is held in the open position, the opening thus formed in the mouthpiece area 12 is maintained unchanged, avoiding a high flow rate of hot beverage and preventing the user's tongue from being scalded.

Claims

1. A disposable cup lid (10) made of plastics using injection molding techniques and adapted for covering a drinking cup, the disposable cup lid (10) being **characterized in that** comprising a coupling rim (11) for attaching to a drinking cup, a mouthpiece area (12), a tab (14), a breakable connection means connected between said mouthpiece area (12) and said tab (14), and at least one stop lug (15) downwardly extended from a bottom wall thereof adjacent to said breakable connection means, said tab (14) being pressable downwardly by an external force to break said breakable connection means in opening said mouthpiece area (12) and stoppable by said at least one stop lug (15) in an open position.

2. The disposable cup lid (10) as claimed in claim 1, **characterized in that** said breakable connection means is a series of dentations (13).

3. The disposable cup lid (10) as claimed in claim 1, **characterized in that** the number of said at least one stop lug (15) is 2, and the two stop lugs (15) are downwardly extended from the bottom wall of the disposable cup lid (10) at two opposite lateral sides relative to said tab (14).

4. The disposable cup lid (10) as claimed in claim 1, **characterized in that** each said stop lug (15) comprises a beveled guide portion (151) located on a bottom side thereof and a positioning portion (152) upwardly extended from a back side of said beveled guide portion (151); said tab (14) comprises at least one outwardly protruding stop portion (141) disposed adjacent to the periphery of the disposable cup lid (10), said at least one outwardly protruding stop portion (141) being movable over the beveled guide portion (151) of each said stop lug (15) for engagement with said positioning portion (152) of each said stop lug (15) to hold said tab (14) in said open position.

5. The disposable cup lid (10) as claimed in claim 1, **characterized in that** said tab (14) comprises a stem (142) upwardly extended from a top side thereof.

6. The disposable cup lid (10) as claimed in claim 1, **characterized in that** said tab (14) is substantially shaped like a mushroom, comprising a relatively narrower body extending upwards and terminating in a stem (142), a relatively wider head forming two reversely outwardly protruding stop portions (141), and two stop lugs (15) located on the two opposite lateral sides of said relatively narrower body.

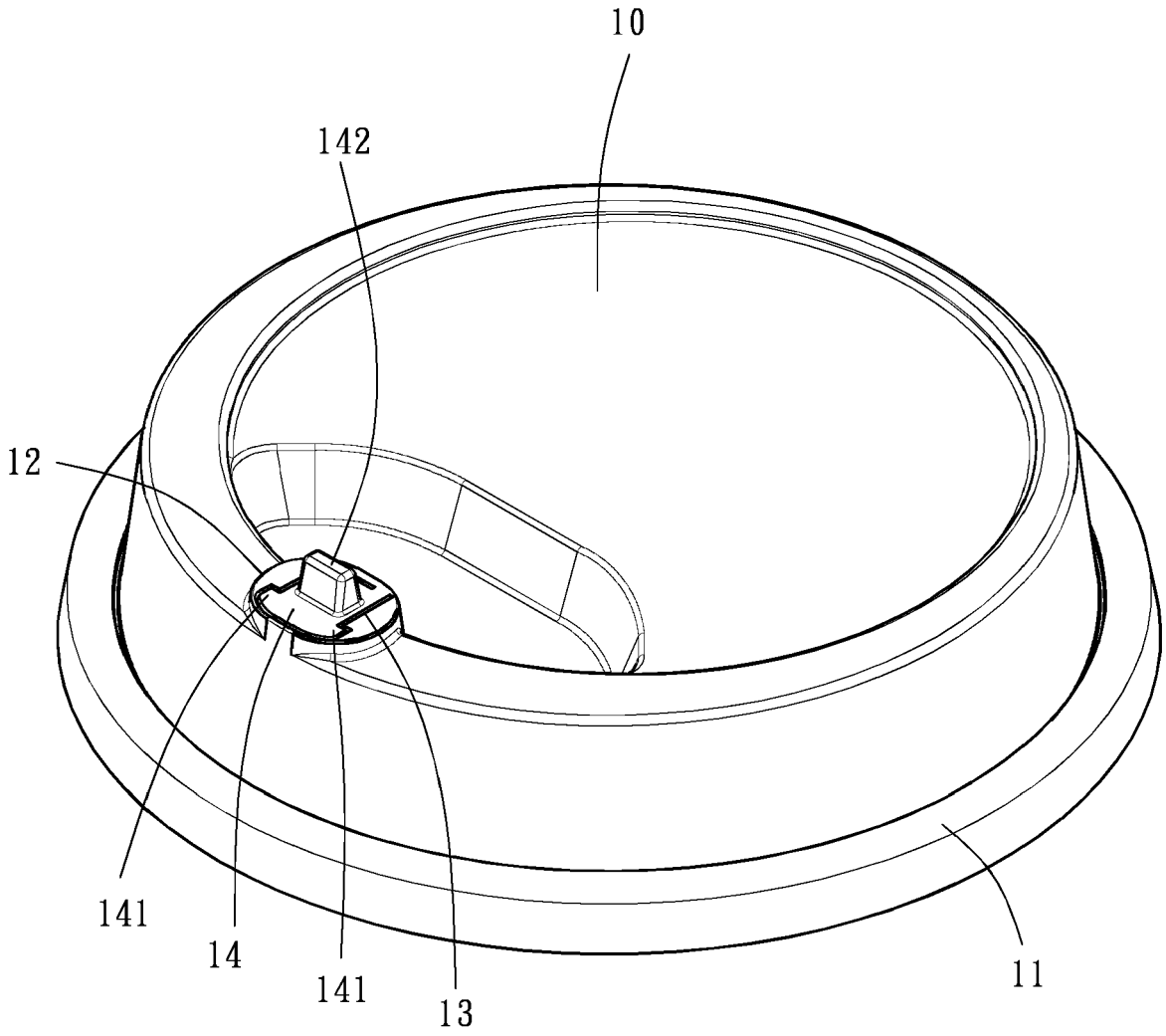

FIG. 1

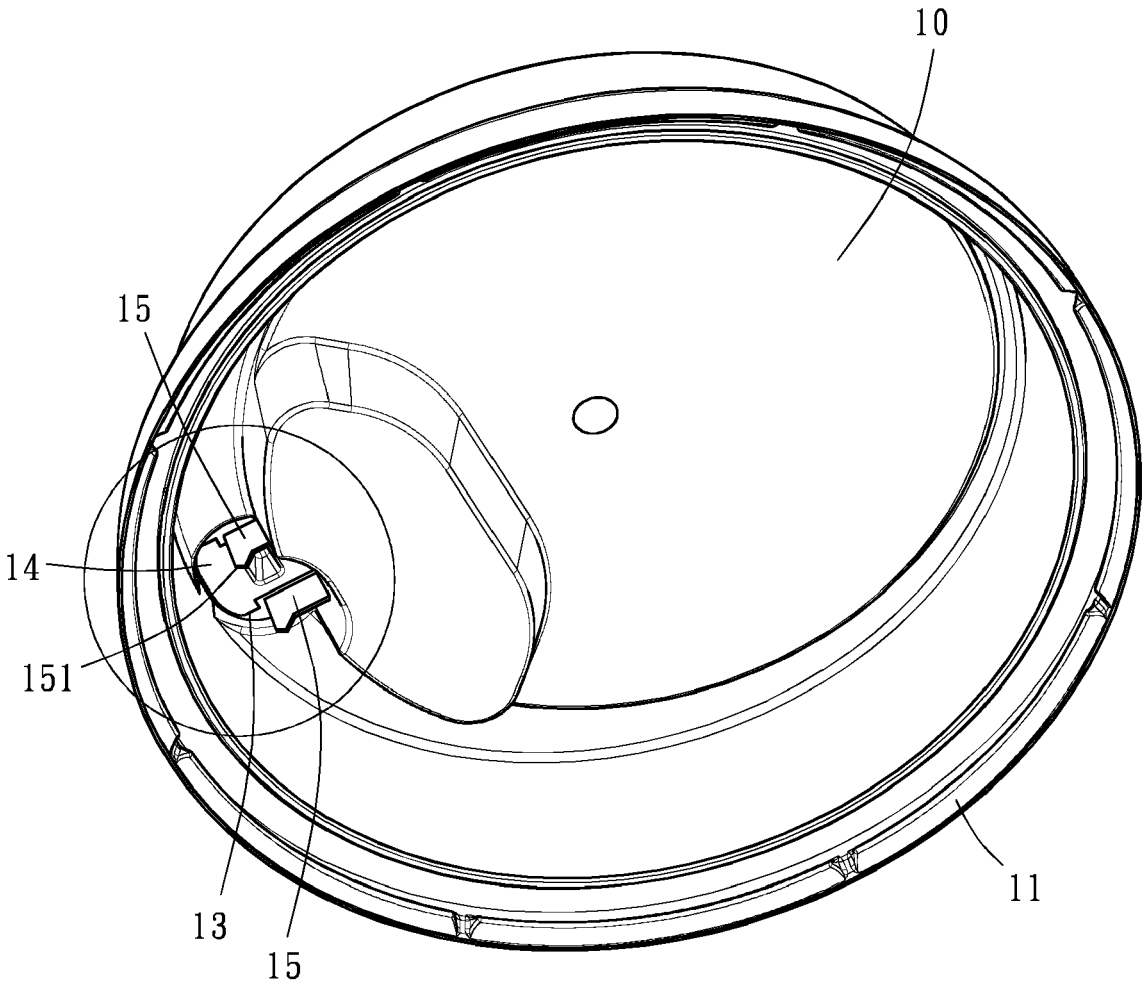

FIG. 2

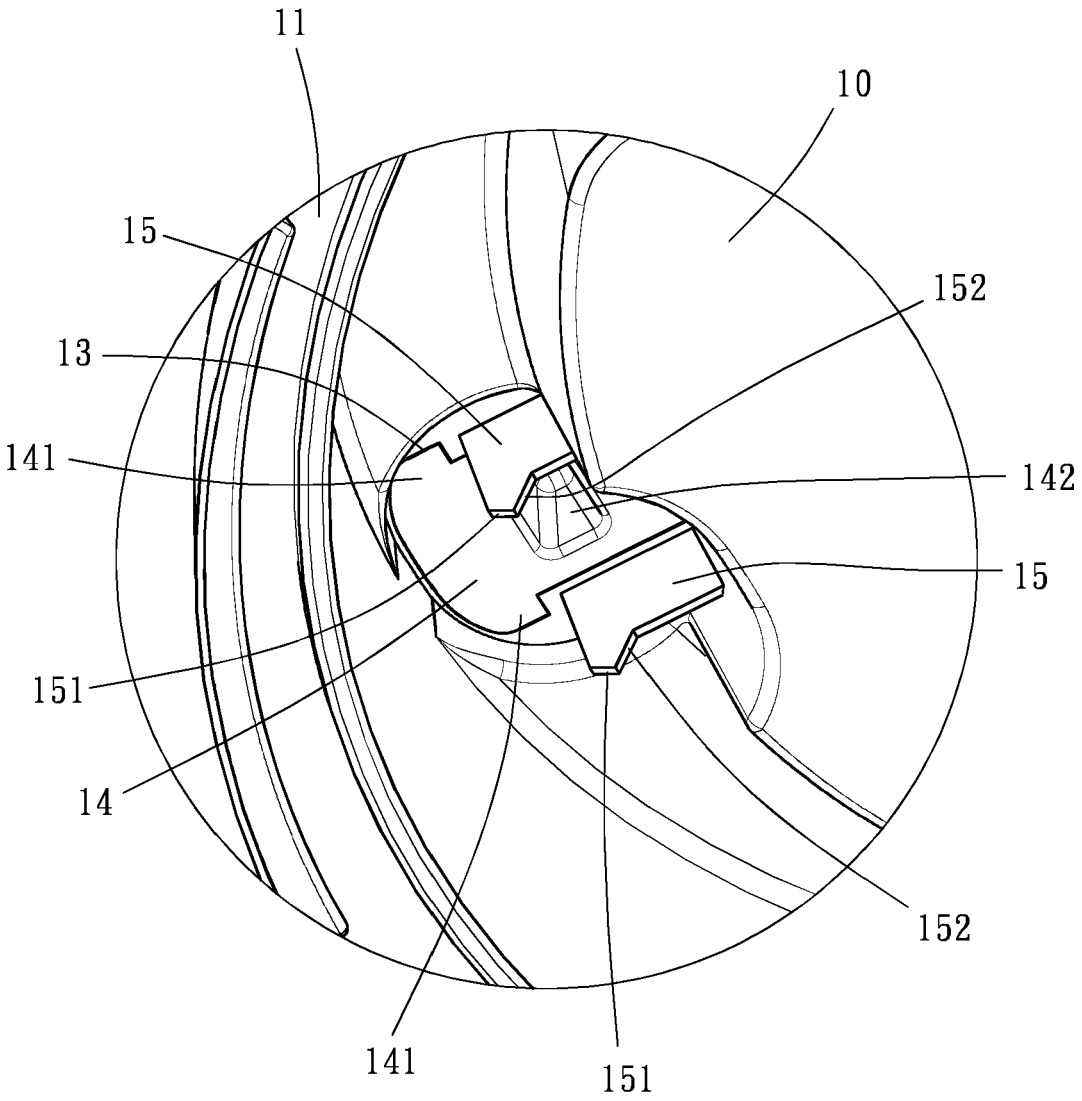

FIG. 3

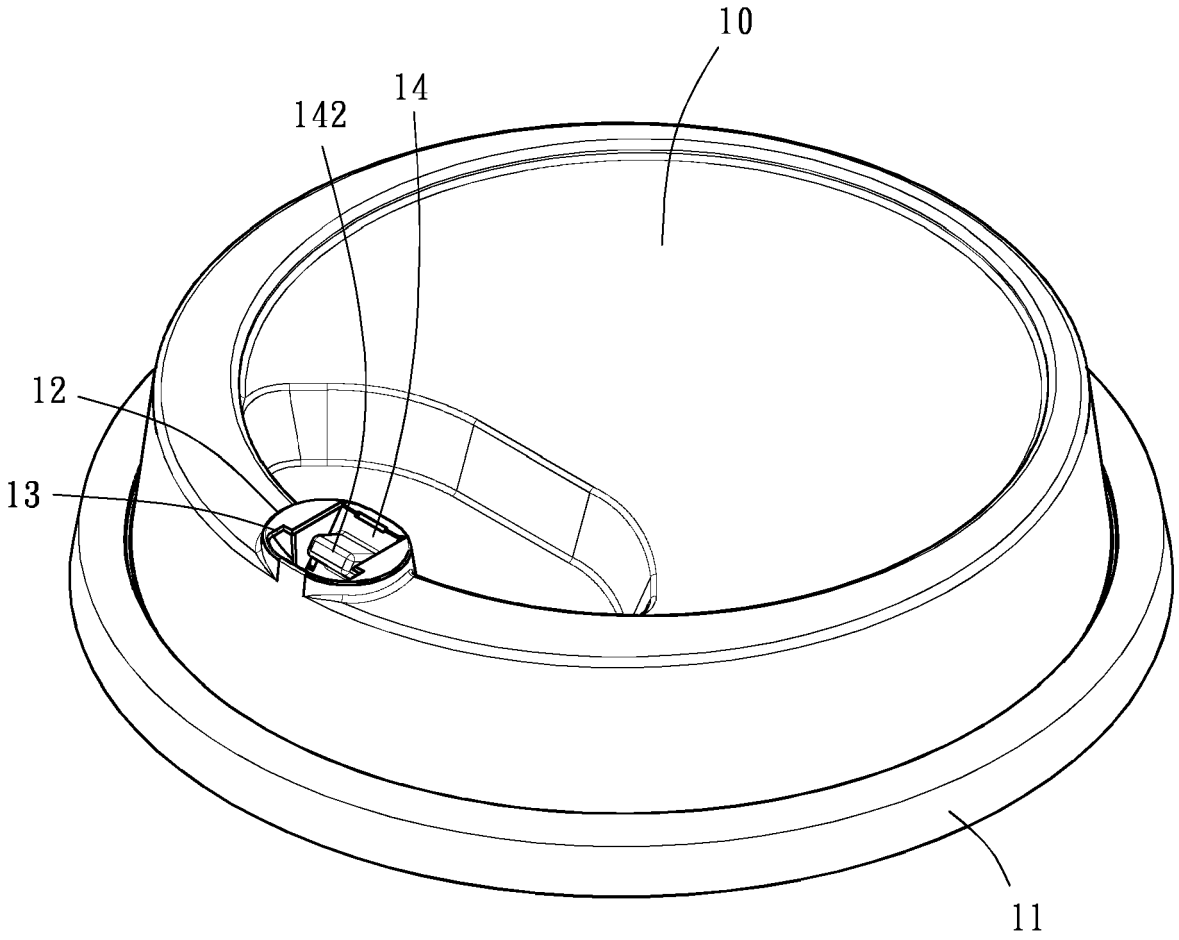

FIG. 4

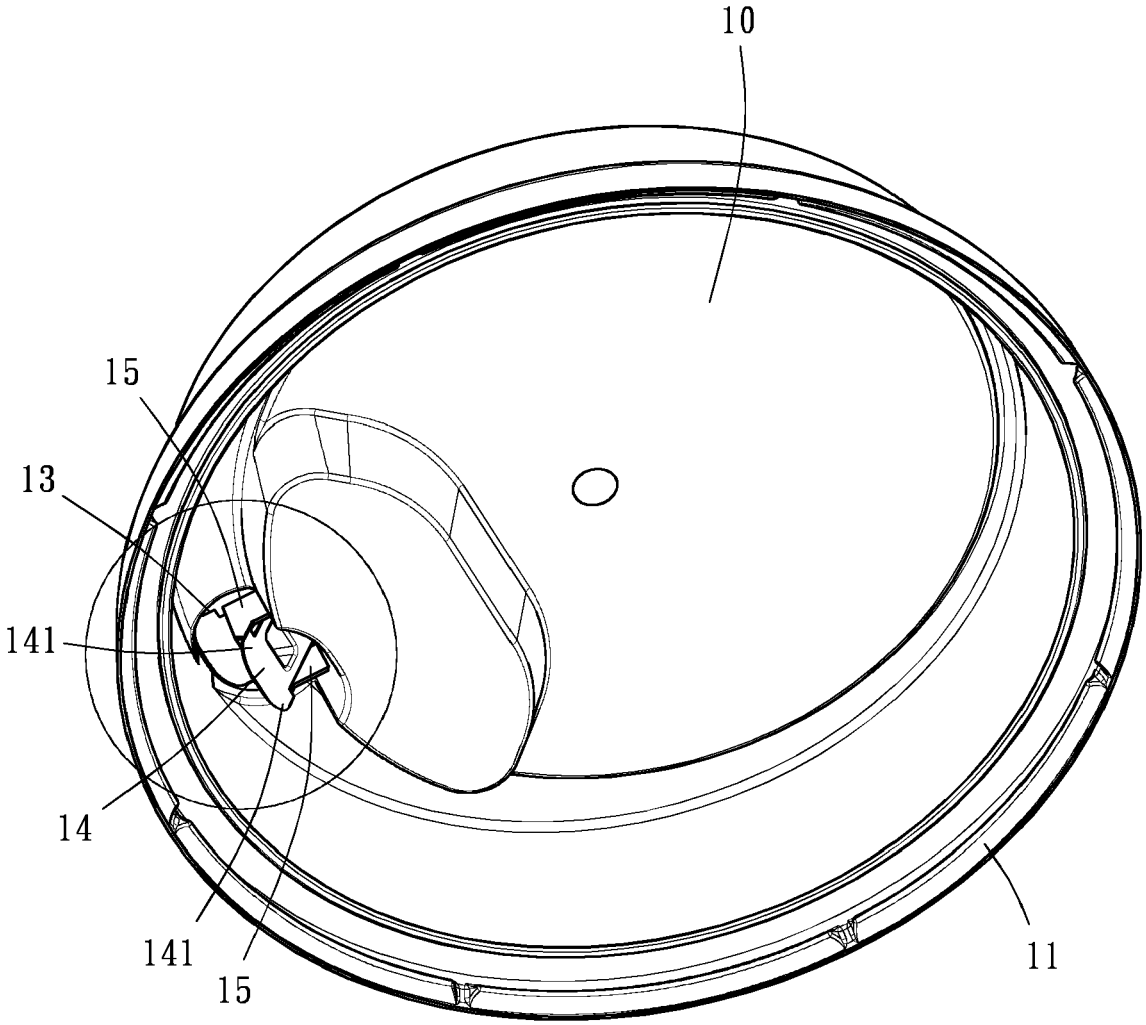

FIG. 5

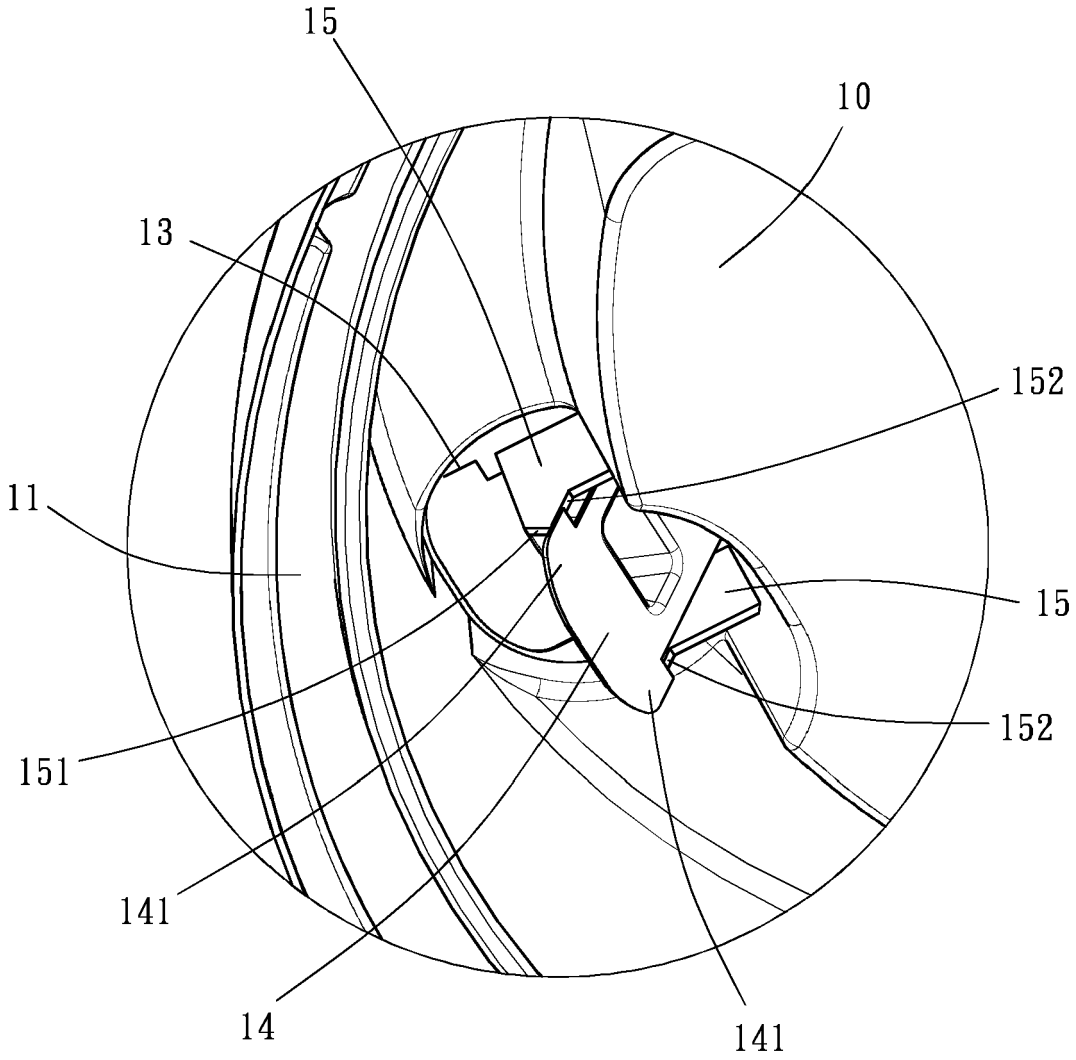

FIG. 6

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EUROPEAN SEARCH REPORT

Application Number
EP 12 15 9468

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X Y A	US 5 894 950 A (KICK JAMES [US]) 20 April 1999 (1999-04-20) * column 6, line 7 - line 9; figures 2,4,6,7 *	1-3,6 5 4	INV. B65D43/02 B65D47/08
Y	WO 2006/036327 A2 (INSULAIR INC [US] DIXIE CONSUMER PRODUCTS LLC [US]) 6 April 2006 (2006-04-06) * first line; page 9, paragraph 4 *	5	
A	US 4 553 684 A (BENNETT ROBERT A [US]) 19 November 1985 (1985-11-19) * figures 5,7 *	1	
A	US 5 699 927 A (LANE WILLIAM F [US] ET AL) 23 December 1997 (1997-12-23) * column 4, line 48 - line 49; figure 5 *	4	

TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	20 July 2012	Sundell, Olli

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 12 15 9468

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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20-07-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5894950 A	20-04-1999	NONE	
WO 2006036327 A2	06-04-2006	CA 2580540 A1	06-04-2006
		CN 101123903 A	13-02-2008
		US 2006071008 A1	06-04-2006
		WO 2006036327 A2	06-04-2006
US 4553684 A	19-11-1985	NONE	
US 5699927 A	23-12-1997	US 5490609 A	13-02-1996
		US 5699927 A	23-12-1997

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82