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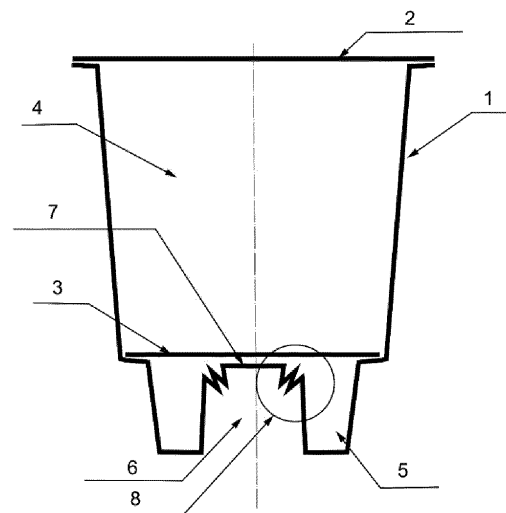
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(54) **DISPOSABLE CUP**

(57) The invention relates to containers for drinks, in particular to cups for disposable use, in which it is possible to keep two components without mixing with each other and mix them before opening the container. The disposable cup contains a body that can be closed with a lid, divided into two chambers by means of a hermetically sealed film. There is a cavity at the bottom of the body, the upper wall of which is in contact with the film. In one embodiment, the upper wall of the cavity is corrugated. In another embodiment, the upper wall of the cavity is made of elastic material. The functionality of the cup is expanded.



**Fig. 1**

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## Description

### Field of technology.

[0001] The invention relates to containers for drinks, in particular to disposable cups, in which it is possible to hold two components without mixing with each other and mix them before opening the container.

### Prior Level of Technology

[0002] Covered disposable cups with cold drinks such as tea, coffee, juices, etc. are widely known.

[0003] As a prototype, we selected a disposable cup for iced tea, described in the patent (CN2565354, IPC: A47G 19/00, publ. 08/13/2003), containing a body closed with a lid, which is divided into two chambers by means of a filter sheet located in the middle part of the cup body. The lower chamber between the filter sheet and the bottom of the cup contains tea or herbal tea for traditional Chinese medicine. The filter sheet contains many small through holes. The function of the filter sheet is to prevent tea leaves from entering the upper chamber.

[0004] All cups that are closed with a lid for disposable use with cold drinks, including the prototype, have one significant drawback, namely: they can only hold one type of drink, which significantly limits their functionality.

### Disclosure of the invention.

[0005] The objective of the invention is to expand the functionality of a cup for disposable use.

The essence of the invention is a disposable cup containing a body that can be closed with a lid, in which, according to the invention, the body is divided into two chambers by means of a hermetically sealed film. There is a cavity at the bottom of the body, the upper wall of which is in contact with the film.

[0006] The essence of the invention is also that the upper wall of the cavity is corrugated.

[0007] The essence of the invention is also that the upper wall of the cavity is made of elastic material.

### Brief description of the drawings.

[0008] The essence of the invention is illustrated by drawings, in which:

Fig. 1 shows a longitudinal section of the cup, made in the closed state of the corrugated upper wall of the cavity,

Fig. 2 shows a longitudinal section of the cup, made after the rupture of the sealed film dividing the body into two chambers,

Fig. 3 shows a general view of the cup before the sealed film breaks, dividing the body into two cham-

bers,

Fig. 4 shows a general view of the cup after breaking the sealed film dividing the body into two chambers.

### Implementation of the invention.

[0009] A disposable cup contains a body (1), which, after being filled with a drink or other component, is closed with a lid (2) (Fig. 1). The body (1) is divided into two chambers (4), (5) by means of a sealed film (3). At the bottom of the body (1) there is a cavity (6), the upper wall (7) of which is in contact with the film (3).

[0010] In one embodiment, the upper wall (7) of the cavity (6) is made corrugated (8).

[0011] In another embodiment, the upper wall (7) of the cavity (6) is made of elastic material (for example, stretch rubber).

[0012] The proposed disposable cup is used as follows. The finger is inserted into the cavity (6) made at the bottom of the body (1) (Fig. 3) and it presses lightly. The corrugation (8) of the upper wall (7) of the cavity (6) opens (Fig. 2), as a result of which the upper wall (7) presses on the sealed film (3) and tears it. Next, by shaking the cup, the contents of both chambers (4), (5) are mixed, after which the cup is opened and the mixture is used.

[0013] The body (1) and cover (2) can be made of plastic, cardboard, thick paper or other biodegradable material. The hermetically sealing film (3) can be made of food-grade non-stretch plastic film. It should be noted that the scope of the invention is not limited to the examples given. For example, methods for breaking the sealed film (3) by pressing a finger on the upper wall (7) of the cavity (6) may be different from the two examples of specific implementation described in the application. It should also be noted that the term "cup" should be understood as any vessel intended for drinking the drink directly from the vessel.

[0014] The cup is suitable for liquids, powders, thick and viscous substances. For example, there may be water in one chamber, and instant coffee in another, or water and jam, or water and honey, etc

### Claims

1. A cup for disposable use, containing a body that can be closed with a lid, **characterized in that** the body is divided into two chambers by means of a hermetically sealed film, there is a cavity at the bottom of the body, the upper wall of which is in contact with the film.
2. A cup according to claim 1, **characterized in that** the upper wall of the cavity is corrugated.
3. A cup according to claim 1, **characterized in that**

the upper wall of the cavity is made of elastic material.

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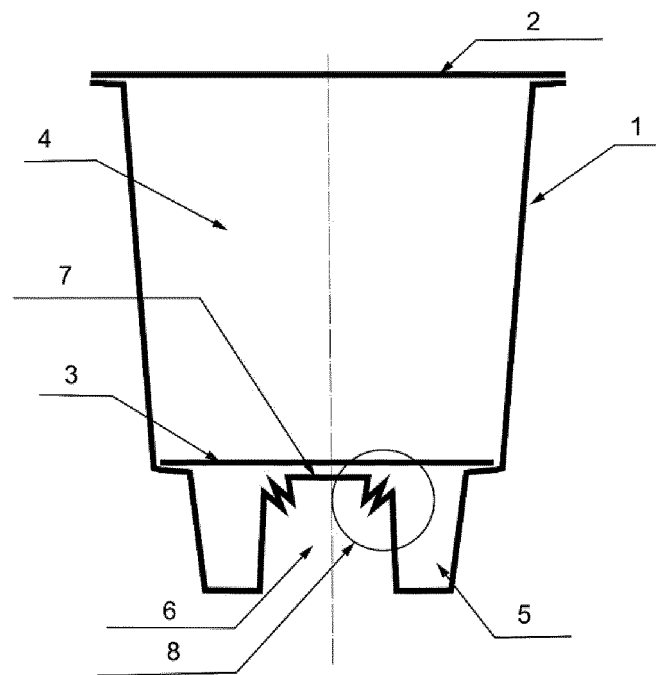
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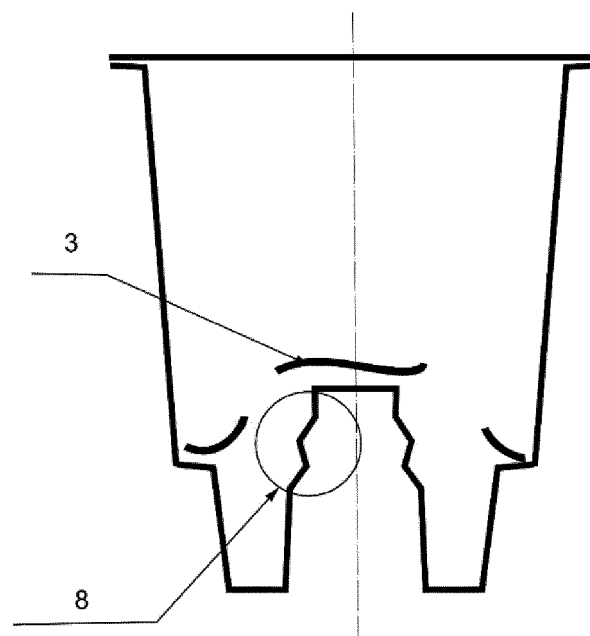
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**Fig. 1**



**Fig. 2**

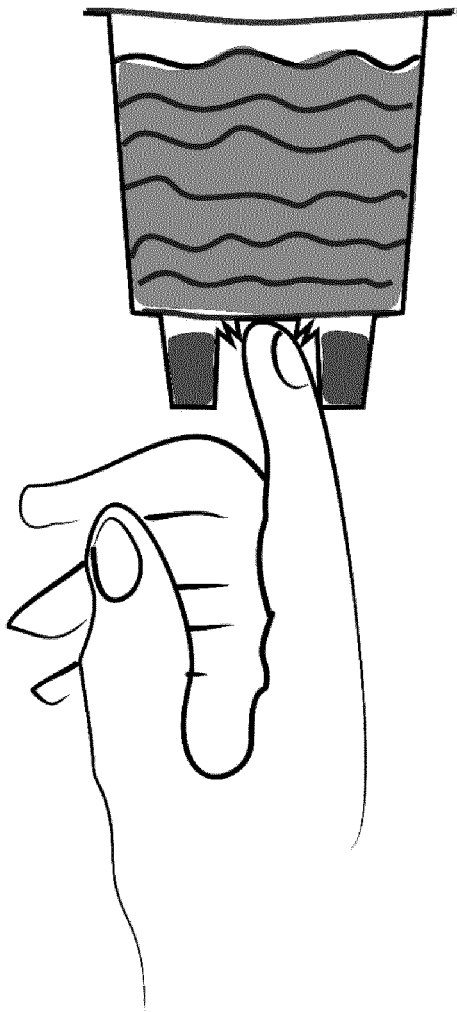


Fig. 3

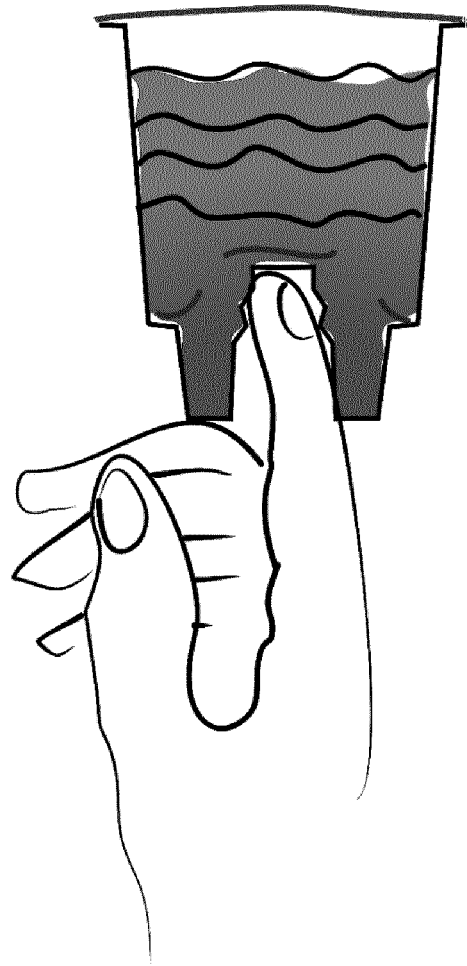


Fig. 4

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 2022/050423

A. CLASSIFICATION OF SUBJECT MATTER  
A47G 19/22 (2006.01); B65D 85/72 (2006.01)

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)

A47G 19/22-19/23, B65D 3/00-3/30, B65D 85/7

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)

PatSearch (RUPTO Internal), USPTO, PAJ, Espacenet, Information Retrieval System of FIPS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	RU 91513 U1 (OBSHESTVO S OGRANICHENNOI OTVETSTVENNOSTJU "SKARABEI") 20.02.2010	1-3
A	JPS 5838575 U, 12.03.1983	1-3
A	JPS 52156684 U, 28.11.1977	1-3
A	CN 204078506 U (ZHUO JUNJIE) 07.01.2015	1-3
D, A	CN 2565354 Y (HUANG RUOPENG) 13.08.2003	1-3

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

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"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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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 March 2022 (17.03.2022)

Date of mailing of the international search report

14 April 2022 (14.04.2022)

Name and mailing address of the ISA/  
RU

Authorized officer

Facsimile No.

Telephone No.

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- CN 2565354 [0003]