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• **De La Hoz Castanys, Luis**
28046 Madrid (ES)

(72) Inventors:
• **Carrera Lespinas, Eduardo**
28020 Madrid (ES)
• **De La Hoz Castanys, Luis**
28046 Madrid (ES)

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(74) Representative: **Lahidalga de Careaga, Jose Luis**
Arturo Soria, 243 Dupl.
28033 Madrid (ES)

(71) Applicants:
• **Carrera Lespinas, Eduardo**
28020 Madrid (ES)

(54) **EXTENDIBLE CONTAINER WITH A THREADED CAP**

(57) Expandable container, made up of a cylindrical container (1), of the type of a soda can, closed at the bottom and open at the top comprising on its outer upper part a thread (2) that will serve to seal the container hermetically by means of a cap (4) and towards the inside a small flange (3) along its entire perimeter, where the screw cap (4) has an internal thread (5) inside, to screw with the external thread of the container (2), and an elastic seal (6) on the upper part of the inner part that will confer tightness to the assembly when the cap is properly tightened; the extensible part is made up of a mobile inner cylinder (7), with a diameter slightly smaller than that of the container, which has a straight perimeter outer flange (8) on its upper edge, which will rest on the top of the

container (1), and another flange (9) on its lower edge curved towards the outside that supports the interior wall of the container (1) and that said curved flange (9) carries an elastic joint (10) inside; and when the mobile inner cylinder (7) slides upwards, it does so until the elastic joint (10) located inside the lower flange (9) abuts the lower part of the circular flange (3), the assembly being watertight in that area; and when the mobile inner cylinder (7) is unfolded, the volume of the assembly is increased, so that to the liquid (11) contained in the container another complementary liquid and even some ice can be added, increasing the volumetric level from level (13) to level (14).

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Description

Object of the invention:

[0001] The present invention refers to an extensible container with screw in cap, of the soda can type, provided inside with a cylinder that allows once the cap has been removed, that said cylinder can emerge vertically creating a new space, arranged to add another complementary liquid, another product, a piece of ice or simply drink the liquid more comfortably.

Field of the Invention:

[0002] The field of the invention is that of the food and beverages industry and more specifically food and beverages packaging.

Description of Related Art:

[0003] There are several records of packaging that can be expanded in some way.

[0004] Within the automotive industry there are oil cans that incorporate funnel-shaped appendages inside the body that help pouring oil more precisely.

[0005] The inventors are aware of the existence of some history of extensible packaging, including the following:

Spanish utility model ES0277689 for "Extensible container" with Jaime Morell Mestre as inventor, but after studying the file in depth, the way to extend the container is done by means of notches outside the content container, a procedure totally different from that disclosed in this invention .

Likewise, the existence of the Spanish utility model, ES1055026, requested on 10/01/2003, has been detected for "Extensible and hygienic device to ingest the content of soft drink cans and the like". After studying the file, it is noted that it is a small spout-shaped extension located above the top of the soda can. Therefore, it has nothing in common with the invention to be registered.

BRIEF SUMMARY OF THE INVENTION

[0006] The present invention, refers to an expandable container with a screw cap, like a soda can type, provided inside with a cylinder that allows once the cap has been removed, that said cylinder can emerge vertically creating a new space, arranged to add another complementary liquid, another product, a piece of ice or simply to drink the liquid more comfortably.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007]

FIGURE 1.- Schematic side view of the container with all its parts.

FIGURE No. 2.- Schematic side view of the container once it has been extended.

FIGURE 3.- Schematic side view of the container to which more liquid and two pieces of ice have been added.

[0008] And in these figures the following elements are identified and numbered

- (1) - Container,
- (2) - external thread of the container,
- (3) - inner tab of the container,
- (4) - screw cap,
- (5) - internal thread of the cap,
- (6) - elastic joint,
- (7) - sliding inner cylinder,
- (8) - upper outer flange of the cylinder (7),
- (9) - lower flange of the cylinder,
- (10) - elastic joint of the lower flange (9) of the cylinder,
- (11) - liquid contained in the container,
- (12) - ices added to the liquid,
- (13) - liquid level inside the container,
- (14) - new level of liquid with add ons.

DETAILED DESCRIPTION OF THE INVENTION

[0009] The device described hereby incorporates a plurality of novel features in relation to other elements used within the sector and solves problems that until now were difficult to solve, in some cases impossible,

[0010] The present invention refers to an expandable container with a screw cap, being a soda can type of container, provided inside with a cylinder that, once the cap has been removed, said cylinder can emerge vertically creating a new space, ready to add another complementary liquid, another product, a piece of ice or simply to drink the liquid more comfortably.

[0011] The extendable container with screw cap is made up of a cylindrical container, soda can type or similar, sealed at the bottom end and open at the top.

[0012] The container comprises a thread on its outer upper part that will serve to seal the container hermetically by means of a cap and inside said container there is a small flange along its entire perimeter.

[0013] The screw cap has an internal thread inside, to screw it to the external thread of the container, and an elastic joint in its upper part, on the inside, which will make the assembly watertight when the cap is properly tightened. In this way, the container can contain all kinds of liquids, even gaseous or carbonated.

[0014] The extensible part is made up of a mobile inner cylindrical element, with a diameter slightly smaller than that of the container, which has a straight perimeter outer

flange on its upper edge, which will rest on the top of the container so that the cylinder is always attached when the container is closed and that it does not move and another flange on its lower edge curved towards the outside that supports the interior wall of the container and that said curved flange has an elastic joint placed on top it.

[0015] When the mobile inner cylinder slides upwards, it does so until the elastic joint located inside the lower flange abuts the lower part of the circular flange, leaving the assembly watertight in this area.

[0016] When the mobile inner cylinder is unfolded, the volume of the set is expanded, so that to the liquid contained in the container you can add another complementary liquid and even some ice, for example thinking of a soft drink to which once opened you can add an alcoholic beverage and even some ice. In this way, a glass will not be needed to prepare such a combination as it will be perfectly made inside the expandable container.

Description of the preferred embodiment:

[0017] The device proposed incorporates a plurality of novel features in relation to other elements used within the sector.

[0018] The present invention refers to an expandable container, of a soda can type, with a screw cap provided inside with a cylinder that, once the cap has been removed, said cylinder can emerge vertically creating a new space, ready to add another complementary liquid, another product, a piece of ice or simply to drink the liquid more comfortably.

[0019] Specifically, the expandable container with screw cap is made up of a cylindrical container (1), of the type of a soda can, closed at the bottom and open at the top.

[0020] Said container comprises on its outer upper part a thread (2) that will serve to seal the container hermetically by means of a cap (4) and towards the inside a small flange (3) along its entire perimeter.

[0021] The screw cap (4) has an internal thread (5) inside, to screw with the external thread of the container (2), and an elastic seal (6) on the upper part of the inner part that will confer tightness to the assembly when the cap is properly tightened.

[0022] The extensible part is made up of a mobile inner cylinder (7), with a diameter slightly smaller than that of the container, which has a straight perimeter outer flange (8) on its upper edge, which will rest on the top of the container (1), and another flange (9) on its lower edge curved towards the outside that supports the interior wall of the container (1) and that said curved flange (9) carries an elastic joint (10) inside.

[0023] When the mobile inner cylinder (7) slides upwards, it does so until the elastic joint (10) located inside the lower flange (9) abuts the lower part of the circular flange (3), the assembly being watertight in that area.

[0024] When the mobile inner cylinder (7) is unfolded, the volume of the assembly is increased, so that to the

liquid (11) contained in the container another complementary liquid and even some ice can be added, increasing the volumetric level from level (13) to level (14).

[0025] Once the nature of the invention has been sufficiently described, as well as the way to carry it into practice, it must be stated that the provisions previously indicated and represented in the attached drawings are subject to detailed modifications as long as they do not alter their fundamental principles, established in the paragraphs above and summarized in the following claims.

Claims

1. Extendable container with screw in cap **characterized by** being made up of a cylindrical container (1), of a type of soda can, closed at the bottom and open at the top, with a top (2) that will serve to close the container hermetically by means of a screw in cap (4) and towards the inside a small tab (3) along its entire perimeter and where the cap (4) has an internal thread (5) inside, to screw with the external thread of the container (2), and in its upper part on the inner part an elastic joint (6); being situated inside the container (1) the extensible part constituted by a mobile inner cylinder (7), with a diameter slightly smaller than that of the container (1) that presents on its upper edge a straight perimeter outer flange (8) which will be the one that rest on the upper part of the container (1) and another flange (9) on its lower edge curved towards the outside that rests on the interior wall of the container (1) and that said curved flange (9) carries an elastic joint inside (10).
2. Extendable container with screw in cap as described in claim 1 **characterized in that** when the mobile inner cylinder (7) slides upwards, it does so until the elastic joint (10) located inside the lower flange (9) comes to a stop with the lower part of the circular flange (3), leaving the assembly watertight in this area.
3. Extendable container with screw in cap as described in claim 1 **characterized in that** when the mobile inner cylinder (7) is unfolded, the volume of the assembly is expanded, so that to a liquid (11) contained in the container another liquid or complementary elements can be added, increasing the capacity of the assembly from level (13) level (14).

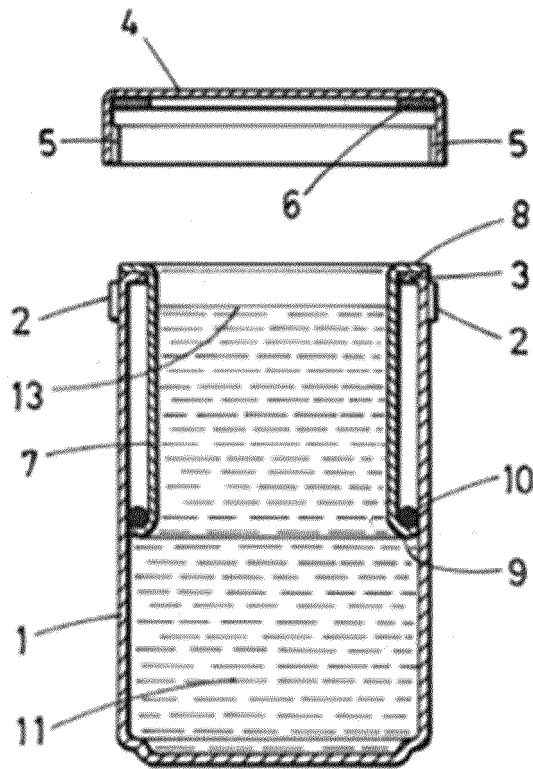


FIG.1

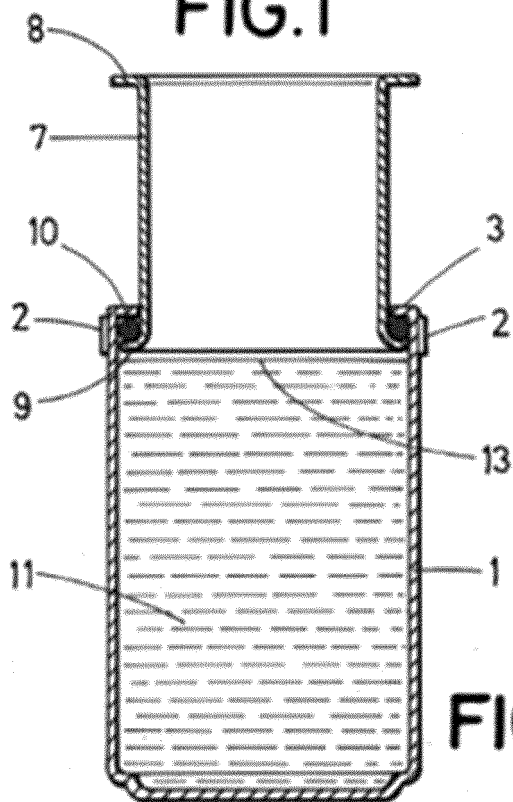


FIG.2

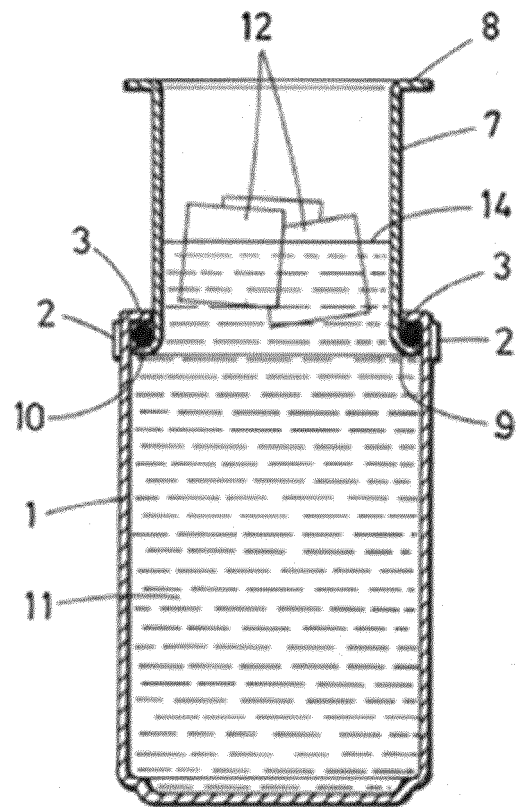


FIG.3

Translation:

Figure 1

Figure 2

Figure 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2019/070468

A. CLASSIFICATION OF SUBJECT MATTER

B65D21/08 (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)

B65D

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)

EPODOC, INVENES, WPI, INTERNET

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2019031398 A1 (HO SUI LING) 31/01/2019, Description: paragraphs 0022-0029. Figures 4, 6	1-3
A	US 2011303659 A1 (PERLMAN DIANE) 15/12/2011, Description: párr. 0104-0113. Fig. 14-18	1-3
A	US 2011180534 A1 (WANG QIN BIN) 28/07/2011, Description: párr.0039-0040. Fig. 4-5	1-3
A	DE 102004054272 A1 (SPENGLER AXEL) 24/05/2006, Description. Figures 1-2	1-3

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

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"E" earlier document but published on or after the international filing date

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"O" document referring to an oral disclosure use, exhibition, or other means.

"P" document published prior to the international filing date but later than the priority date claimed

"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

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"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 documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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Name and mailing address of the ISA/

Authorized officer
R. Bozal Callejo

OFICINA ESPAÑOLA DE PATENTES Y MARCAS
Paseo de la Castellana, 75 - 28071 Madrid (España)
Facsimile No.: 91 349 53 04

Telephone No. 91 3498581

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2019/070468

C (continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of documents, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 201793087U U (DONGGUAN YAJUN PAPER PRODUCT CO LTD) 13/04/2011, Abstract. Fig.3-6	1-3
A	US 1093873 A (MITCHELL JOHN F) 21/04/1914, Description. Fig.1	1-3

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INTERNATIONAL SEARCH REPORT

International application No.

Information on patent family members

PCT/ES2019/070468

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US1093873 A	21.04.1914	NONE	