

# **Patent Search**

by:

Our ref: Date of search: Your ref:

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# **Patent Search**

A patent search in agreement with Your request has been made by a patent attorney. The search has been performed in a selection of relevant international databases.

The report contains categorized references to the most relevant patent publications and/or nonpatent literature (NPL) documents found in the search, together with comments. Cited patents are attached to the electronic report.

### Scope of the search

The search has focused on the following:

The search has been directed towards finding a collapsible plastic bottle with the following technical characteristics:

\* The walls of the bottle are shaped in the manner of bellows.

## Search history

Used keywords and classes:

IPC classes:

- \* B65D 90/02 bottles, component parts, wall construction
- \* B65D 1/40 containers, details of walls
- \* B65D 37/00 portable flexible containers

Search words (truncations are not included, for the sake of clarity):

- \* Bottle, container
- \* Collapsible, foldable, crushable, flexible, compactable

# Summary of the result

Although no document disclosing a collapsible bottle exactly corresponding to that in your description has been found, the search revealed a number of documents which are considered to be relevant. These documents disclose collapsible bottles including the technical characteristics listed under "Scope of the search".

If there are any questions regarding the result, please do not hesitate to contact us.

# The following databases have been used:

Patent databases Espacenet Google.com/patents

# Result

The following documents are considered to be relevant. They are categorized according to the codes:

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

"A" = document defining the general state of the art which is not considered to be of particular relevance

# Patent Literature - overview

Aspect	Patent number	Applicant	Class	Relevance
collapsible bottle	US2004/0040972	Нај	B65D 6/08	Y
collapsible bottle	US2007/0000859	Pedulla et al.	B65D 90/02	Y
collapsible bottle	US2007/0145000	Musalek	B56D 90/02	Y
collapsible bottle	US733899	Canton Rubber Company	B65D	A



# Patent literature - details

Aspect Relevance collapsible Y bottle

Patent number US2004/0040972 Class B65D6/08;B65D8/04;B65D90/02

#### Applicant

Kalil Haj

#### Title

Collapsible beverage container and method therefor

#### Abstract

[Publication date: 2004-03-04 Oldest priority date: 2002-04-09]

A collapsible liquid container has a collapsible bottle section and a cap assembly. The collapsible bottle section expands and collapses to accommodate varying amounts of liquid. The cap assembly is coupled to the collapsible bottle and it prevents leakage of the liquid while allowing for the passage or air as the collapsible bottle section is expanded and collapsed.



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Aspect Relevance collapsible

# Y

Patent number US2007/0000859 Class B65D90/02

#### Applicant

bottle

Pedulla Christian P; Gianfillippo Pagliacci

#### Title

Progessively collapsible, disposable container

### Abstract

[Publication date: 2007-01-04 Oldest priority date: 2003-06-12]

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5(8)

Progressively-collapsible disposable container, of the type in which at least part (2) of the container lateral surface consists of a bellows structure including a plurality of adjacent folds (A-G), each fold being formed by two opposite surfaces of different width, characterised in that the larger-width surface (A-D) is stiffer than the smaller-width one (D-E). Preferably, the greater stiffness of the larger surface of the folds is a shape stiffness, obtained shaping the surface with a stiffening step-rib (A-C), having rounded-off edges, projecting outwards of the container.



Relevance

Y

collapsible bottle Patent number US2007/0145000 **Class** B65D90/02

#### Applicant

Aspect

Musalek Oto

#### Title

Plastic collapsible bottle with accordion-like arranged bellows ridges

#### Abstract

[Publication date: 2007-06-28 Oldest priority date: 2003-12-22]

The bottle has accordion-like collapsible bellows ridges (1) with upper and lower arched shape surfaces (1',1''), always only one of the surfaces (1',1'') is provided with a system of ridge embossed or stamped stiffenings (2) without horizontal continuity. System of vertical stamped stiffenings (3) is present as well, creating recesses (4) of the bellows ridges (1) with angle greater than 90°, having arched shape haunches (5) at the top and bottom. Stacking depression (6) is created in the bottom of the bottle, the bottle is preferably provided with removable label leaving no residue and it has completely detachable cap (7).



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#### Relevance P

collapsible A bottle

Patent number

US733899

Class

#### Applicant

Aspect

Canton Rubber Company

#### **Title** [retrieved from database]

Water bottle funnel neck

#### Abstract

[Publication date: 1903-07-14 Oldest priority date: 1902-09-24]

In combination, a flexible bottle having a neck, an inflexible cup attached by its sides in the neck, a spout leading from the bottom of the cup into the bottle, and a stopper in the spout.



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The following should be understood when reviewing the results of this search report:

This Search is a preliminary search, and is carried out in computerized databases. The results of this Search should not be considered exhaustive, nor should they be interpreted as providing more than general indicative information regarding the field of the invention.