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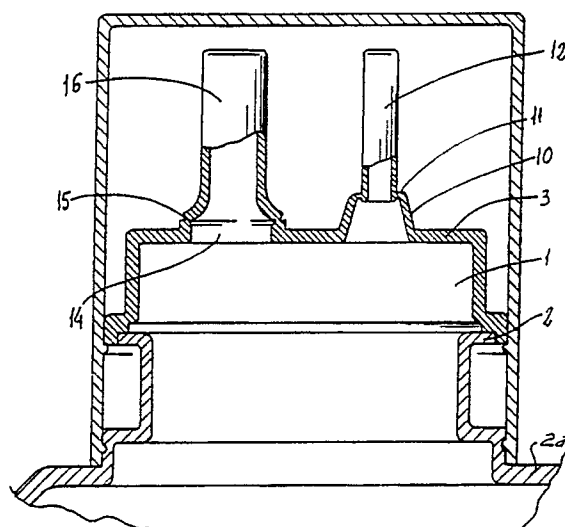
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**Closure and sealing device for containers.**

A container closure and sealing device comprises a mouthpiece (1) hermetically sealed to the mouth (2) of the container (2a), and whose free base or bottom (3) is closed off by a partition in which are situated two zones of different dimensions (10,14), both same surrounded by weakened lines, which form each cover (11,15) which may be pulled away.

It is characterized by the fact that the mouthpiece (1) has the shape of a small saucepan with its bottom (3) being formed of a continuous partition and the two zones of different dimensions being separated from each other, the smaller of these zones having a neck (10) closed off by a lid (11) elongated by the corresponding pull-tag (12), and the larger zone having a mouth or opening of larger size than the neck (10), it being also closed by a lid (15), which is similarly elongated into its corresponding pull-tag (16), the two openings thus remaining independent of each other on opening of the container (2a).

FIG. 1



## CLOSURE AND SEALING DEVICE FOR CONTAINERS

The present invention refers to a closure and sealing device especially applicable for containers destined to contain liquids hermetically sealed from the exterior until such time as they are used.

### BACKGROUND OF THE INVENTION

The containers destined to these purposes have a practically normal constitution, although in the specific case of serums and other liquids for patient inoculation they are closed by means of perforable membranes which prevent direct contact with the exterior. In other cases, use in large quantities does not permit partial closure or opening and, therefore, if they are not consumed entirely there is a risk of the product losing its sterile condition and therefore rendering the remaining content of the container unuseable.

Spanish patent No. 8803360, whose applicant is the same of the present application, refers to a device comprising a mouthpiece fitted hermetically to the mouth of the container, the free base or bottom of which is sealed by a partition in which two zones of different dimensions are situated, the smaller being included within the body of the larger, and both being surrounded by weakened perforation lines which form either cover and which can be pulled away.

The larger cover, which contains the smaller, substantially covers the total mouthpiece opening and bears a ring-shaped pull-tag set within it and flattened down onto the cover at origin and linked to said cover by weak and breakable points. The smaller cover forms a lid over the first and is equipped with a simple tag for pull ing away thereof.

This arrangement of the device, which in practice responds to the mission for which it was designed, does however present two principal disadvantages:

- on the one hand, formation of the tag in ring form on the larger cover is complex, for it requires compound moulds which mean that the moulding operation is always expensive;
- and, on the other hand, opening of the entire mouthpiece on pulling away of said larger cover greatly hinders distribution of the liquid inside the container, even when this is to be done on a mass basis, for certain applications do not require an excessive quantity.

### DESCRIPTION OF THE INVENTION

The improvements object of the invention tend towards provision of a solution to the disadvantages noted, permitting both simple and easy moulding of covers and pull-tags, and subsequent distribution of the content of the container under excellent conditions.

In accordance with the embodiment of the invention, the mouthpiece has the form of a small saucepan with its bottom comprising a continuous partition and the two zones of different dimensions being separated from each other. The smaller zone further presents a neck closed off by a lid elongated by the corresponding pull-tag, and the larger zone presents a mouth or opening of larger dimensions than the neck of the smaller zone, also closed by a lid which is similarly elongated by its corresponding pull-tag.

The two openings are thus independent of each other when the container is opened.

This structure facilitates both moulding of the mouthpiece and that of the covers and pull-tags in one simple and conventional moulding operation, while, as the larger cover has dimensions which are not as large as those of mouth opening, better distribution of container contents is possible, even when for mass use.

### BRIEF DESCRIPTION OF THE DRAWINGS

For the better understanding of all expounded herein, attached to the present description are some drawings which show in schematic form, and only as an example without restrictive character, a practical embodiment of a device improved in accordance with the invention.

In said drawings, figures 1 and 2 show two views in cross section of a container neck, fitted with the closure and sealing device object of the invention, in closing and opening positions of the covers, respectively.

### DESCRIPTION OF A PREFERRED EMBODIMENT

As will be noted from the drawings, the mouthpiece 1, which is joined to the mouth 2 of the container 2a, takes the form of a small saucepan, whose bottom 3 forms a continuous partition from which there arises a short neck 10 sealed off by a lid 11, which is elongated into an emerging appen-

dage 12 which is the tag for pulling-away and opening.

On the actual bottom 3 of the small saucepan or mouthpiece 1 another opening 14 has been fitted, similarly closed off by another lid 15, from which there similarly emerges a tag-appendage 16 which, as in the case of the appendage 12, shall serve for tearing away and opening of the mouth 14.

As will be noted, the neck 10 is in this way not included in the cover which formed practically the entirety of the bottom 3 of the mouthpiece 1, remaining completely independent of the mouth opening 14.

Furthermore, the ring-pull tag fitted in the embodiment of the aforementioned patent is now no longer necessary, which furthermore greatly simplifies moulding of the mouthpiece 1, which can easily form a single assembly, without moving elements attached to it.

The inherent advantages of this arrangement are obvious for, on the one hand, the smaller size of the larger mouth 14 does not reduce potential for mass application of the product, but rather allows application to be more controlled than with the entire mouth opened; on the other hand, the greater ease of moulding of the mouthpiece means that cost price of same can be lower.

## Claims

Container closure and sealing device, of the type which includes a mouthpiece (1) hermetically sealed to the mouth (2) of the container (2a), and whose free base or bottom (3) is closed off by a partition in which are situated two zones of different dimensions, both same surrounded by weakened lines, which form each cover which may be pulled away, characterized by the fact that the mouthpiece has the shape of a small saucepan with its bottom (3) being formed of a continuous partition and the two zones of different dimensions being separated from each other, the smaller of these zones having a neck (10) closed off by a lid (11) elongated by the corresponding pull-tag (12), and the larger zone having a mouth or opening of larger size than the neck (10), it being also closed by a lid (15), which is similarly elongated into its corresponding pull-tag (16), the two openings thus remaining independent of each other on opening of the container (2a).

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FIG. 1

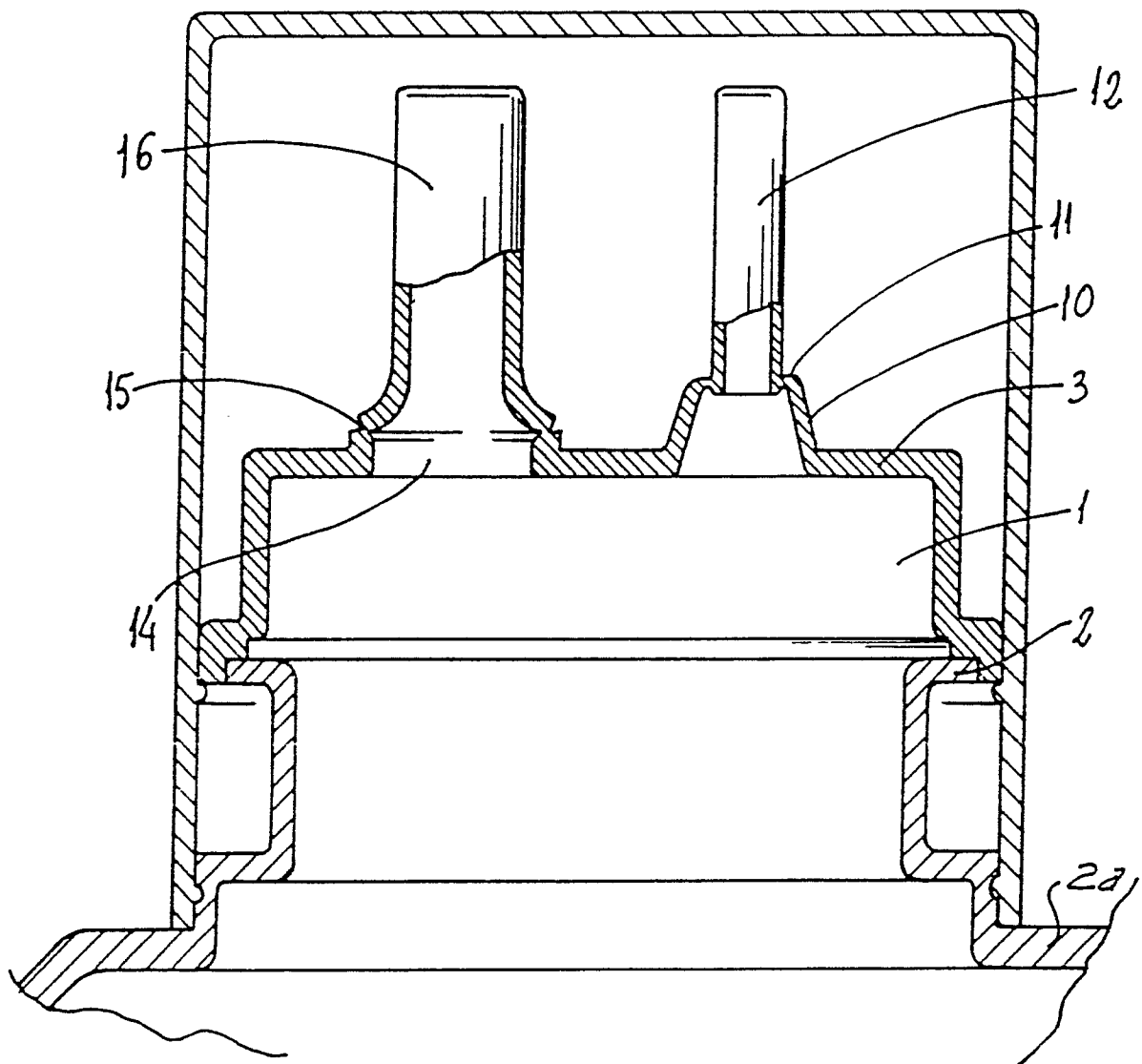
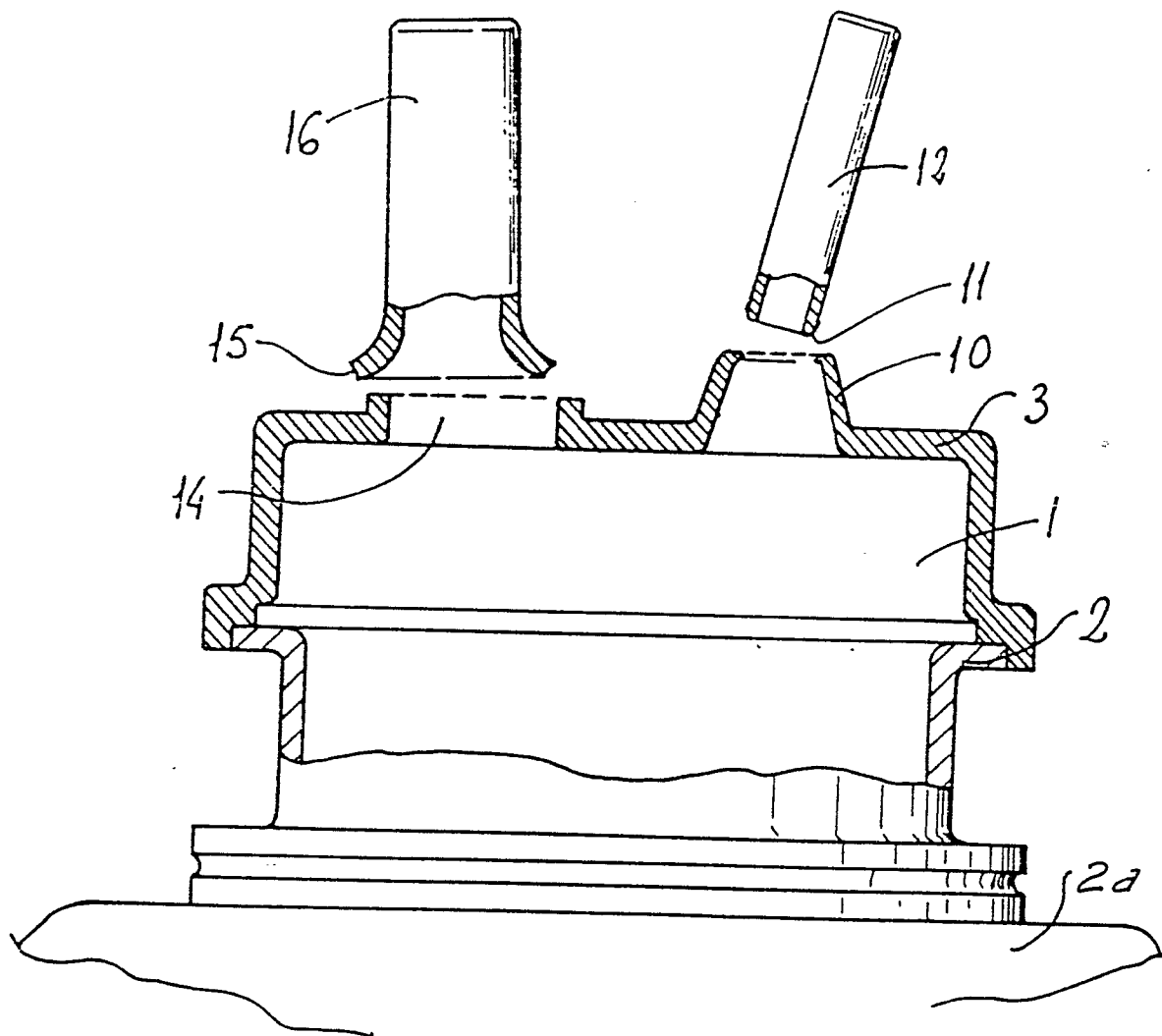


FIG. 2





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	GB-A- 586 634 (BAXTER) * Page 1, line 85 - page 2, line 35; figure 1 * ---	1	B 65 D 47/36
Y	FR-A-2 539 300 (HOLLISTER) * Page 14, lines 16-29; figure 9b * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 D A 61 J
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31-05-1990	Examiner BRIDAULT A.A.Y.
<div>CATEGORY OF CITED DOCUMENTS</div> <div>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</div> <div>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</div>			