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(54) **Tumbler suitable to close a bottle hermetically**

(57) A tumbler (1) which, in addition to containing a beverage to be consumed, can act, when in the inverted position, as a cap for closing hermetically a bottle (6) which in turn acts as a support for the tumbler (1). The described tumbler (1) has, on its bottom, a cap (3) which protrudes inward and has a diameter which matches the diameter of the end of the neck of the bottle and a shape which allows it to be fixed thereon by snap action when it is pushed downward.



Fig. 4

Description

[0001] The present invention relates to a tumbler, which besides containing a beverage to be consumed can act, when in the inverted position, as a cap for closing hermetically a bottle which in turn acts as a support for the tumbler.

[0002] The tumbler according to the invention has, on its bottom, a ring or tubular protrusion which protrudes inwardly and has a diameter which corresponds to the diameter of the end of the neck of the bottle and a shape which allows it to be fixed thereon by interlocking when it is pushed downward. The tumbler can be separated easily from the bottle by pressing upward the outer part of its bottom or by pulling.

[0003] The built-in cap can be of the snap-on or threaded type, depending on the type of bottle to be closed. In the case of a threaded cap, the bottle is closed and opened by turning the tumbler.

[0004] Further characteristics and advantages of the tumbler according to the invention will become better apparent from the detailed description of preferred embodiments thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a view of the inner part of the tumbler with a built-in snap-on cap.

Figure 2 is a longitudinal sectional plane view thereof, taken along the line A-A of Figure 1.

Figure 3 is a view of the bottle closeable by means of the inverted tumbler.

Figure 4 is a sectional view of the bottle closed by means of the inverted tumbler.

Figures 5 and 6 are sectional views of further embodiments of the tumbler with snap-on cap.

Figure 7 is an internal view of the tumbler in the embodiment provided with a threaded cap.

Figure 8 is a sectional view of the tumbler, taken along the line A-A of Figure 7.

Figure 9 is a sectional view of the tumbler of Figure 8 which closes a bottle provided with a threaded neck.

Figures 10 and 11 are sectional views of further embodiments of the tumbler provided with a threaded cap.

[0005] In the Figures, the reference numeral 1 designates the body of the tumbler and the reference numeral 2 designates the bottom thereof. The reference numeral 3 designates a circular ring, or tubular protrusion, which protrudes inwardly and constitutes the cap which is built into the tumbler. In the snap-on embodiments, the protrusion 3 ends with a portion 4 which is folded inwardly and is suitable to engage the corresponding groove 5 of the bottle 6, as shown in Figures 3 and 4.

[0006] In the embodiment of Figures 5 and 6, a groove 7 is provided for facilitating the molding of the tumbler, which is preferably made of plastics.

[0007] In the embodiment of Figures 7, 8 and 9, the ring or tubular protrusion 3 is provided with an internal thread 8 which matches the thread 9 of the neck of the bottle.

[0008] The other embodiments of the tumbler having a threaded cap, shown in Figures 10 and 11, differ from the preceding one for the presence of the groove 7, which can be provided for molding-related manufacturing reasons.

[0009] Regardless of the embodiments used, the tumbler according to the invention can act as a hermetic closure for a bottle, which in turn acts as a support for the tumbler. The tumbler provided with a threaded cap might be used from the very first filling of the bottle.

[0010] The tumbler, which can be made of plastics, can have different shapes and dimensions. A grip or pushing element might be provided on its outer part in order to facilitate its removal. Reinforcement ribs might be provided if necessary. In the embodiments with a snap-on cap, the ring 3 might also be segmented by radial gaps or the like.

[0011] In practice, the material used, as well as the contingent shapes and dimensions, so long as they are compatible with the specific use, may be any according to requirements and to the state of the art.

[0012] The disclosures in Italian Patent Application No. PS2000A000022 from which this application claims priority are incorporated herein by reference.

[0013] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A tumbler suitable to close a bottle hermetically, **characterized in that** it is provided, on its bottom (2), with a ring or tubular protrusion (3) which protrudes inwardly and whose diameter, position and shape correspond to those of the end of the neck of the bottle (6) on which the tumbler (1) can be applied in the inverted position, thereby acting as a cap (3).
2. The tumbler according to claim 1, **characterized in that** the cap (3) integrated in said tumbler (1) can be of the snap-on type or of the threaded type, depending on the type of bottle to be closed.
3. The tumbler according to the preceding claims, **characterized in that** the snap-on cap comprises the ring (3) segmented by radial gaps or the like.
4. The tumbler according to the preceding claims,

characterized in that it is providable with a body (1) having various shapes and dimensions, and **in that** it has, in particular, on its outer part, a grip or pusher element adapted to facilitate its removal.

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5. The tumbler according to the preceding claims, **characterized in that** it is provided with a threaded cap (3) with the internal thread (8) thereof matching the thread (9) of the neck of the bottle in a sealing manner, the cap being detachable for using from the very first filling of the bottle (6).

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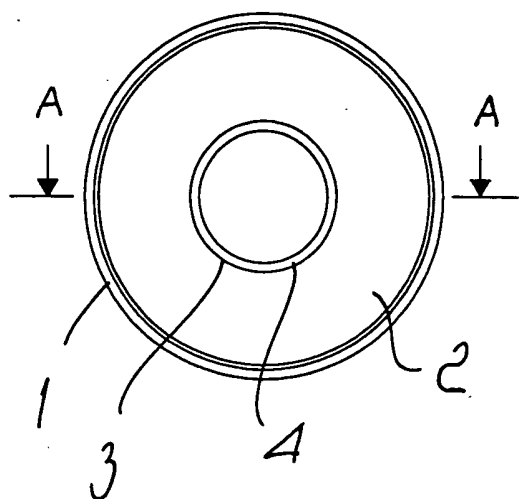


Fig. 1

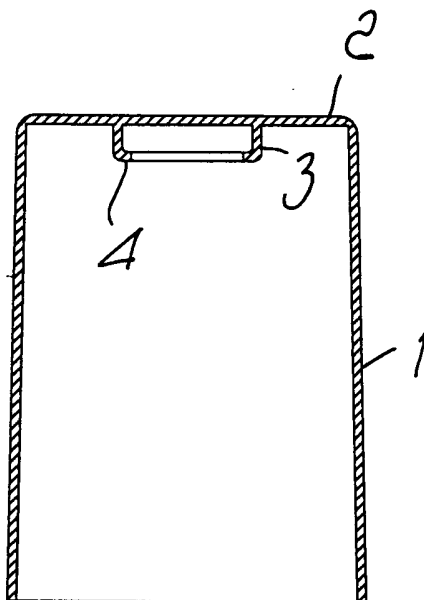


Fig. 2

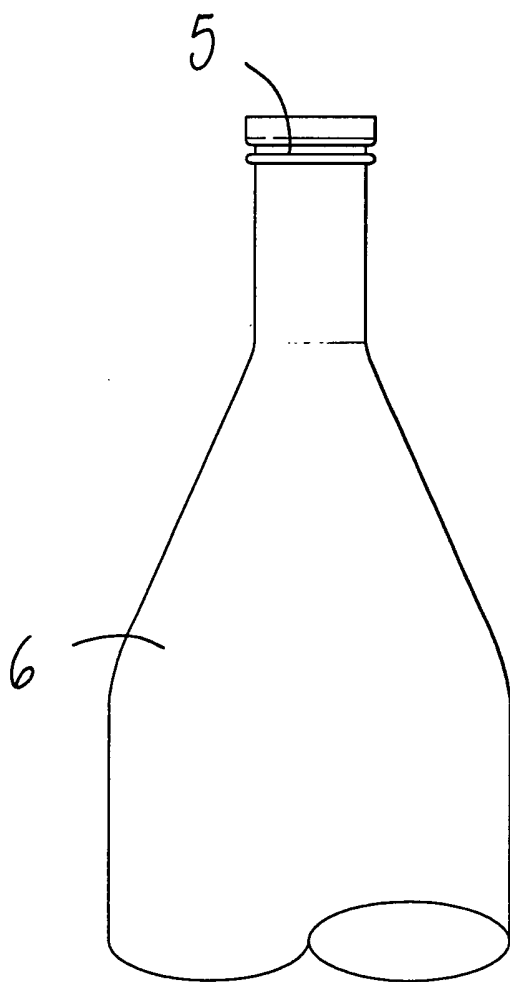


Fig. 3



Fig. 4

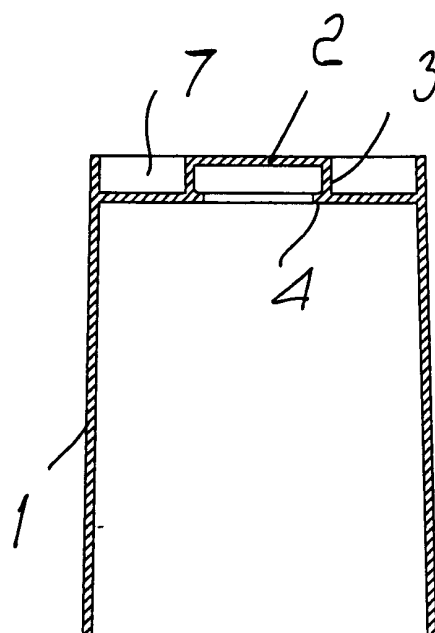


Fig. 5

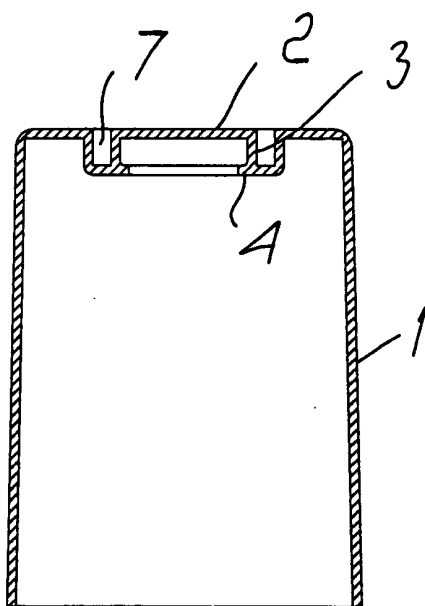


Fig. 6

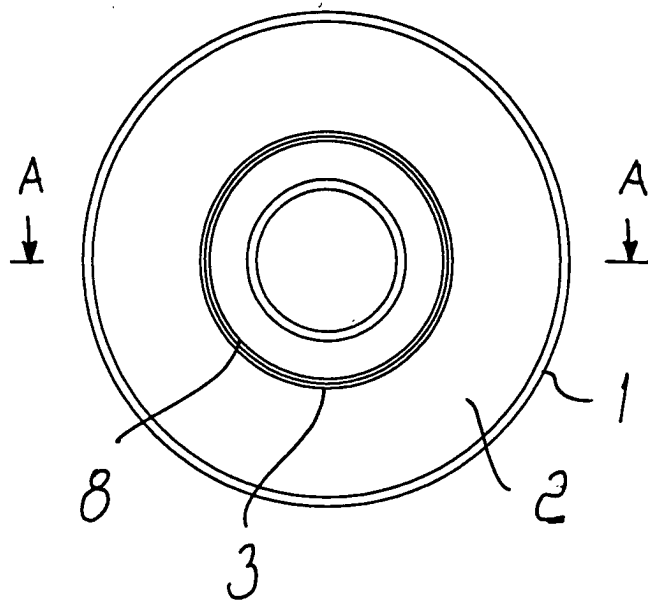


Fig. 7

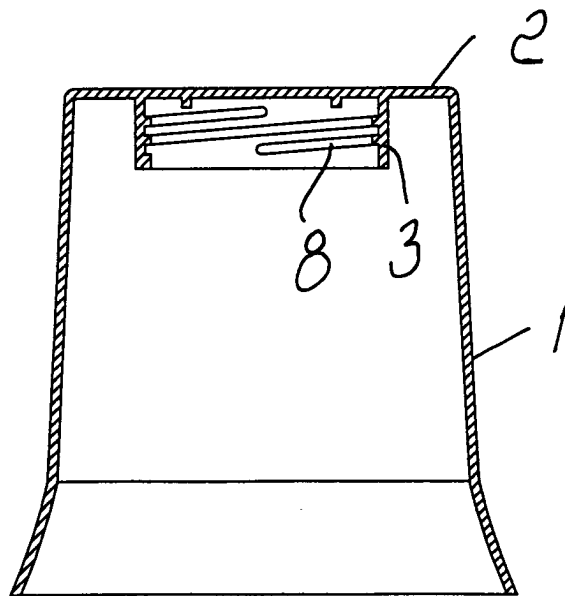


Fig. 8

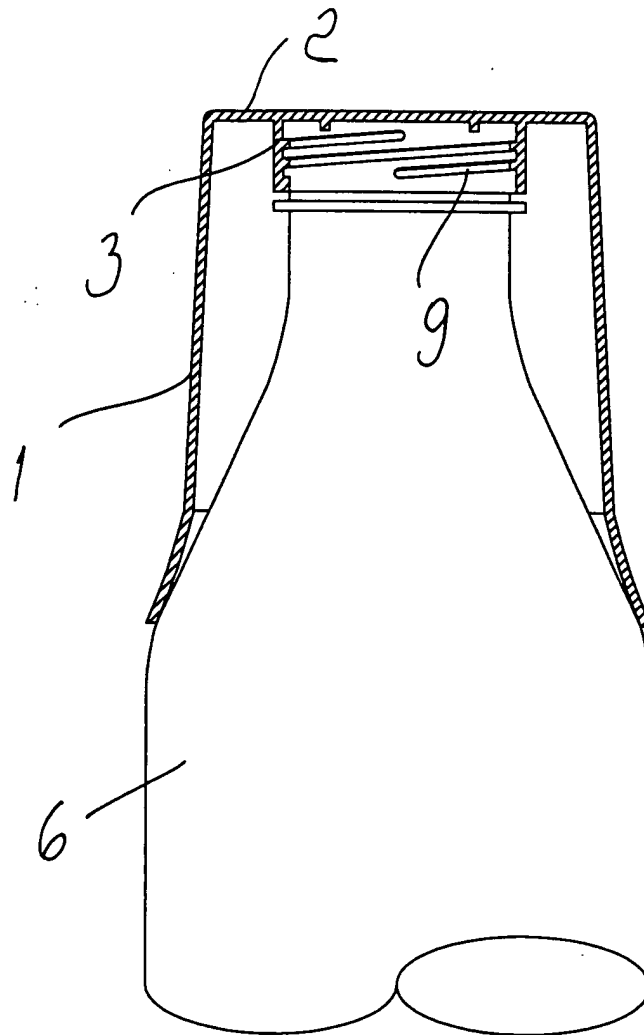


Fig. 9

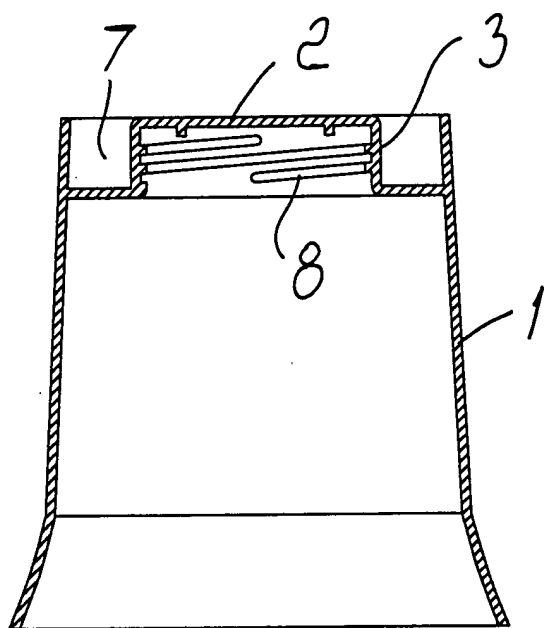


Fig. 10

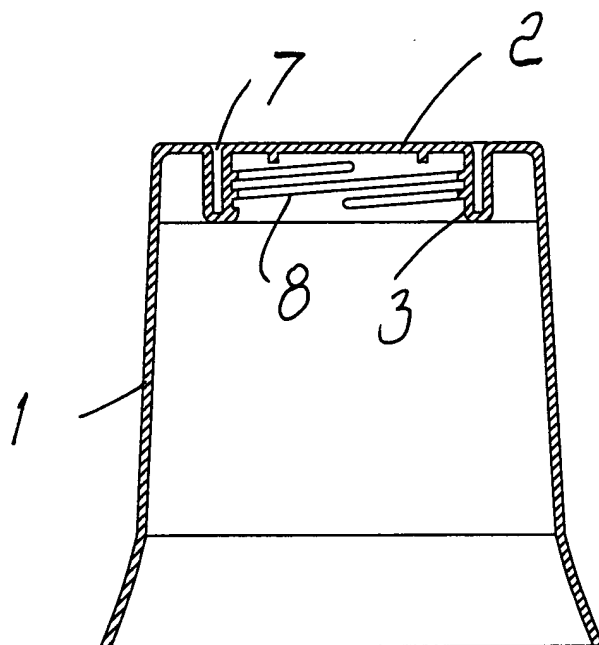


Fig. 11



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EUROPEAN SEARCH REPORT

Application Number
EP 01 11 2954

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	FR 1 366 351 A (SAW HAROLD) 10 July 1964 (1964-07-10) * figure 3 *	1,2,4,5	B65D41/26
X	FR 1 191 831 A (BOUCHON COURONNE) 22 October 1959 (1959-10-22) * figures 1,2,4 *	1-4	
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A	US 2 669 369 A (TOWNS EDWARD J) 16 February 1954 (1954-02-16) * column 2, line 42 - line 49; figure 1 *	3	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14 March 2002	Examiner Bridault, A
CATEGORY OF CITED DOCUMENTS 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 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 & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P4/C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 01 11 2954

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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