

[54] CONTAINER AND CLOSURE

[75] Inventor: Ivo Hauser, Vevey, Switzerland

[73] Assignee: Societe d'Assistance Technique pour Produits Nestle S.A., Lausanne, Switzerland

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Primary Examiner—Herbert F. Ross
Attorney, Agent, or Firm—Watson Leavenworth
Kelton & Taggart

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ABSTRACT

Container and closure comprising a container, the neck of which terminates into a bead and provided adjacent to said bead with peripheral bulges, the closure having a substantially resilient skirt with inside hooks engaged with the bead and inner lugs engageable with the bulges.

3 Claims, 5 Drawing Figures

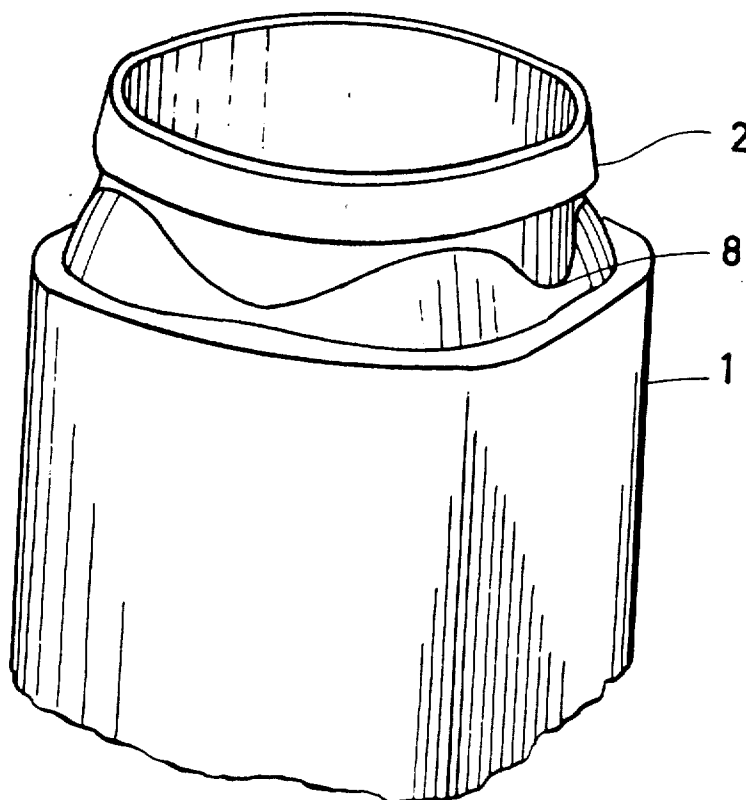


Fig.1

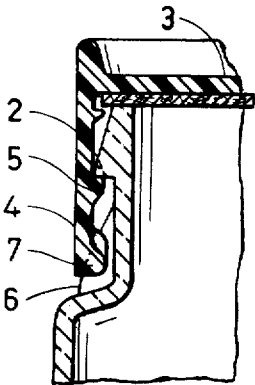
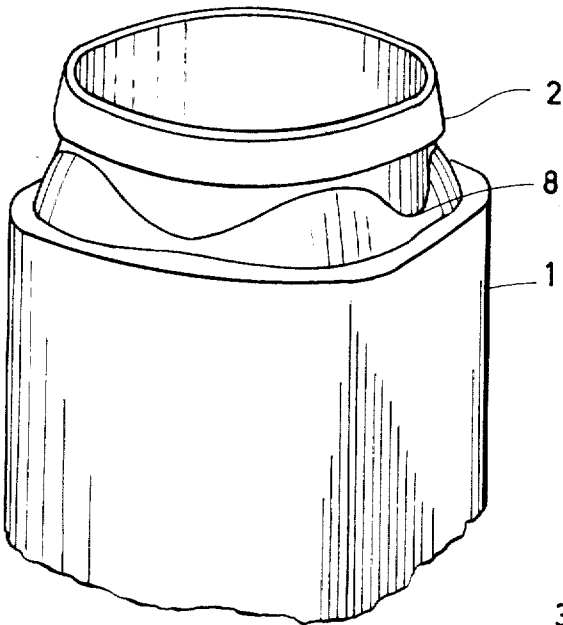


Fig.2

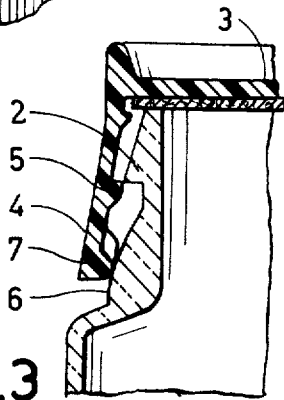


Fig.3

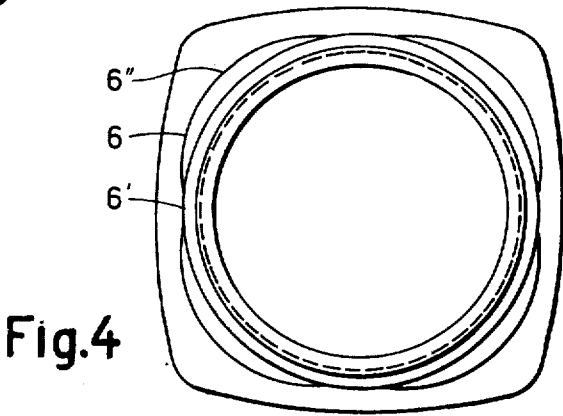


Fig.4

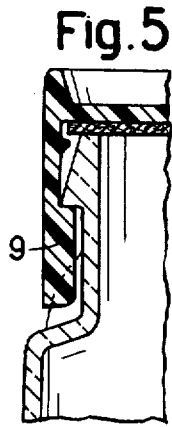


Fig.5

CONTAINER AND CLOSURE

The invention relates to a container and closure combination comprising a container having a substantially rigid neck terminating in an annular bead provided with an upper sealing surface and an inwardly and downwardly disposed shoulder surface substantially parallel to the upper sealing surface, said neck being provided adjacent to said bead with peripheral bulges, said bulges being substantially crescent-shaped viewed from the end of the neck, and a closure having a substantially rigid end portion and a substantially resilient skirt, said skirt being provided with inside hooks engaged with the shoulder surface of said bead and with inner lugs adjacent to the hooks, engageable with the peripheral bulges.

By rotating the closure relatively to the container, the lugs are engaged by the bulges and the relatively resilient skirt is spread out, which disengages the hooks from the bead of the container neck. The closure can then be separated easily from the container, that is the latter is opened.

In a preferred embodiment, the peripheral bulges taper off towards the annular bead.

The advantages of the invention will be better understood from the following description, by way of example, of an embodiment of the invention with reference to the illustrations thereto, in which:

FIG. 1 is a partial perspective of a container according to the invention with the closure removed;

FIG. 2 is a partial longitudinal section along the axis of the container and of the closure, the latter snapped on the former;

FIG. 3 is a section similar to FIG. 2 but with the hooks disengaged from the bead of the container;

FIG. 4 is a view of the container from the end of its neck, showing the shape of the bulges;

FIG. 5 is a section similar to FIG. 2 of a particular embodiment.

Referring to the drawing, the container 1 is of substantially square transversal section with rounded edges. The substantially rigid neck of the container is conventionally hollow and has the usual bore, as shown, with this neck terminating in an annular bead 2, provided with an upper sealing surface which circumscribes the neck bore. This bead 2 is shown in the drawing as having an annular shoulder surface arranged substantially parallel to the upper sealing surface and facing downwardly away from the latter with this shoulder surface extending laterally inward toward the neck bore. Adjacent to the bead, the neck is provided with peripheral bulges 6 which, viewed from the end of the neck, are substantially crescent-shaped.

The container neck is capped by a closure of substantially the same section as the container, having a substantially rigid end portion 3 and a substantially resilient skirt 4. This skirt is provided with inside hooks 5 engaged with the shoulder surface of the bead 2, and with inner lugs 7 adjacent to the hooks 5. In the embodiment shown, there are 4 bulges, 4 hooks and 4 lugs.

If the angular position of the closure relatively to the container is such that the lugs 7 register with the troughs 6' between the bulges 6, the closure is snapped on the container neck as shown by FIG. 2.

If the angular position of the closure is such that the lugs 7 are engaged on the top 6'' of the bulges 6, the relatively resilient skirt is spread out, which disengages the hooks 5 from the bead (see FIG. 3) and the closure can be separated from the container, that is the latter can be opened.

It is easy to understand that when the closure is snapped on the container as shown in FIG. 2, a slight rotation of the closure relatively to the container brings the closure to the position shown in FIG. 3, freeing the closure from the container. Alternatively, it suffices to press the closure down on the container, the lugs 7 registering with the troughs 6', to have it snapped on as shown in FIG. 2.

In a preferred embodiment, as shown in FIGS. 1, 2 and 3, the peripheral bulges 6 taper off towards the annular bead. This has two effects which facilitate opening and closing the container. When the closure is rotated relatively to the container, the taper tends to lift the closure off the container, which facilitates opening. When the closure is placed on the container, which facilitates opening. When the closure is placed on the container in whatever respective angular position, the engagement of the lugs with the tapered bulges tends to bring the lugs in register with the troughs 6'. The closure is therefore oriented in a specific angular position relatively to the container. This is particularly fitting if, as in the example shown, the closure and container are of the same polygonal section, so that the closure registers with the container sides.

In the embodiment shown in FIG. 5, the hook is integral with the adjacent lug, forming one and the same part 9.

I claim:

1. A container and closure combination comprising, a container, having a substantially rigid hollow neck terminating in an annular bead provided with an upper sealing surface circumscribing the bore of said neck, said bead having an annular shoulder surface arranged substantially parallel to the upper sealing surface and facing downwardly away from the latter with this shoulder surface extending laterally inward toward the neck bore, said neck being provided adjacent to said bead with peripheral bulges, said bulges being substantially crescent-shaped viewed from the end of the neck, a closure, having a substantially rigid end portion and a substantially resilient skirt, said skirt being provided with inside hooks engaged with the shoulder surface of said bead and with inner lugs adjacent to the hooks, engageable with the peripheral bulges.

2. A container and closure combination according to claim 1, in which the peripheral bulges taper off towards the annular bead.

3. A container and closure combination according to claim 1 in which each hook is integral with each adjacent lug.

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