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⑦① Applicant: **U.G. CLOSURES & PLASTICS LIMITED**,
Kingston Road, Staines Middlesex, TW18 1AD (GB)

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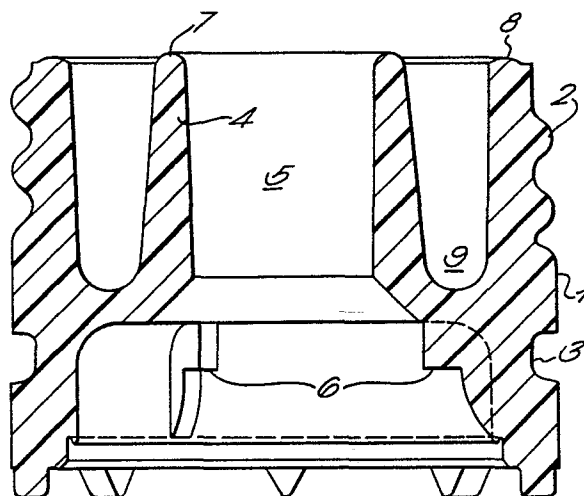
⑦② Inventor: **Hopley, Eric Trevor**, 4, Highland, Calstor Lane,
Poringland Norwick, NR14 7QT (GB)

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⑦④ Representative: **Votier, Sidney David et al, CARPMAELS**
& **RANSFORD** 43, Bloomsbury Square, London
WC1A 2RA (GB)

⑤④ **Pourer attachment and non-refillable fitment equipped with such a pourer attachment.**

⑤⑦ A pourer attachment for use in a non-return valve fitment for a container comprising a one-piece moulding having outer (1) and inner (4) annular walls, the outer annular wall (1) having means (2) for engagement therewith of complementary means on a closure cap whereby the cap may be attached to the pourer attachment, the inner annular wall (4) defining a pouring outlet (5), and the outer and inner annular walls defining between them an annular well (9). In a preferred embodiment the outer extremity (7) of the inner annular wall stands proud of the outer extremity (8) of the outer annular wall, so that when a closure cap is applied to the attachment a primary seal is obtained between the top of the inner wall and the inside of the top of the cap.



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"POURER ATTACHMENT"

This invention relates to pourer attachments for containers, and especially to an attachment forming a component of a non-refillable fitment.

Non-refillable fitments are known, their purposes
5 being to allow the free flow of fluid from the container but to prevent the re-filling or "topping-up" thereof. They find considerable use in the spirits trade, and ensure that containers filled with spirits, and thereafter provided with a non-refillable fitment, cannot be
10 tampered with to the extent that some of the spirit is removed from the container and replaced with a different, for example a diluting, liquid. A well-known non-refillable fitment comprises a simple one-way ball valve, suitably made from a plastics material such as polystyrene,
15 having an inlet situated within the neck of the container, a screw-threaded outlet and an annular flange between the inlet and outlet, which rests upon a sealing washer seated on the rim portion of the container mouth. The ball itself is particularly of glass, stainless steel,
20 ceramic or plastics material. The fitment is held captive on the container by means of an external metal cowl, an upper annular surface of which firmly presses the flange of the fitment against the washer and that in turn against the rim of the container when the skirt portion of

the cowl is conformed to an annular recess or bead formed on the container neck below the rim portion. The closure is completed by a threaded cap, suitably of a plastics material, which is screwed onto the screw-threaded outlet-portion of the valve fitment.

It has recently become popular to provide wine and spirit containers with caps of the "tamperproof" or "pilferproof" variety. Such caps are made from thin-gauge metal such as aluminium, and have a cylindrical skirt an upper portion of which is screw-threadedly attached to a screw-thread on the container neck, and a lower edge of which is rolled into an annular recess or beneath an annular bead formed on the container neck below the screw-thread. Between the upper and lower portions of the skirt is a circumferential line of weakening, which may for example take the form of a tear-strip, or normally, a series of spaced bridges and slots, whereby the upper skirt portion, may, in order to open the container, be separated from the lower skirt portion, often referred to as a security ring.

We have recently provided a container with both a non-refillable fitment and a metal pilferproof cap, and such is described in British Patent Application No.932/77. According to that Specification the non-return valve is held tightly on the container by means of the outer pilferproof-cap being crimped into an annular recess formed on the outer part (or pourer attachment) of the valve and beneath an annular bead or shoulder formed on the container.

The non-return or one-way valve is normally made up of three components, namely an inner component seated within the neck of the container, an outer component attached thereto, and a movable valve member, such as a ball, which is movable between the other two parts. The inner and outer components of the valve are usually formed by a moulding technique, the ball is placed in the inner

component and the inner and outer components are then joined together.

It has been found that in use such non-return valves suffer from the disadvantage that a small amount of liquid
5 may collect in the space between the top of the cap and the valve. This is due to the fact that it is not uncommon, during either inspection, transit or storage of the filled bottles, for the bottles to get inverted. Liquid thus flows past the non-return valve to fill the space between
10 the valve and the cap and, of course remains there once the bottle is placed upright again. When the bottle is opened for the first time, the contents of the space above the valve tend to spill out.

The object of the present invention is to prevent
15 this, and the invention accordingly provides a pourer attachment for use in a non-return valve fitment for a container which comprises a one-piece moulding having outer and inner annular walls, the outer annular wall having means for engagement therewith of complementary
20 means on a closure cap whereby said cap may be attached to said pourer attachment, the inner annular wall defining a pouring outlet, and the outer and inner annular walls defining between them an annular well.

The pourer attachment of the invention is the outer
25 component of a non-return valve of the type mentioned above, another example of which may be seen in U.K. Patent Specification No.835,507. It will before use be attached to an inner component with a ball or other suitable movable valve member retained between the two.

30 In a preferred embodiment the outer extremity of the inner annular wall stands proud of the outer extremity of the outer annular wall, so that when a closure cap is applied to the attachment a primary seal is obtained between the top of the inner wall and the inside of the top
35 of the cap. In an alternative construction the inner and outer walls are of the same height and a sealing wad or disc

situated between the top of the inner wall and the cap forms the primary seal. A secondary seal may if desired be formed between the cap and the outer annular wall, e.g. by deforming the outer periphery of the top of the cap.

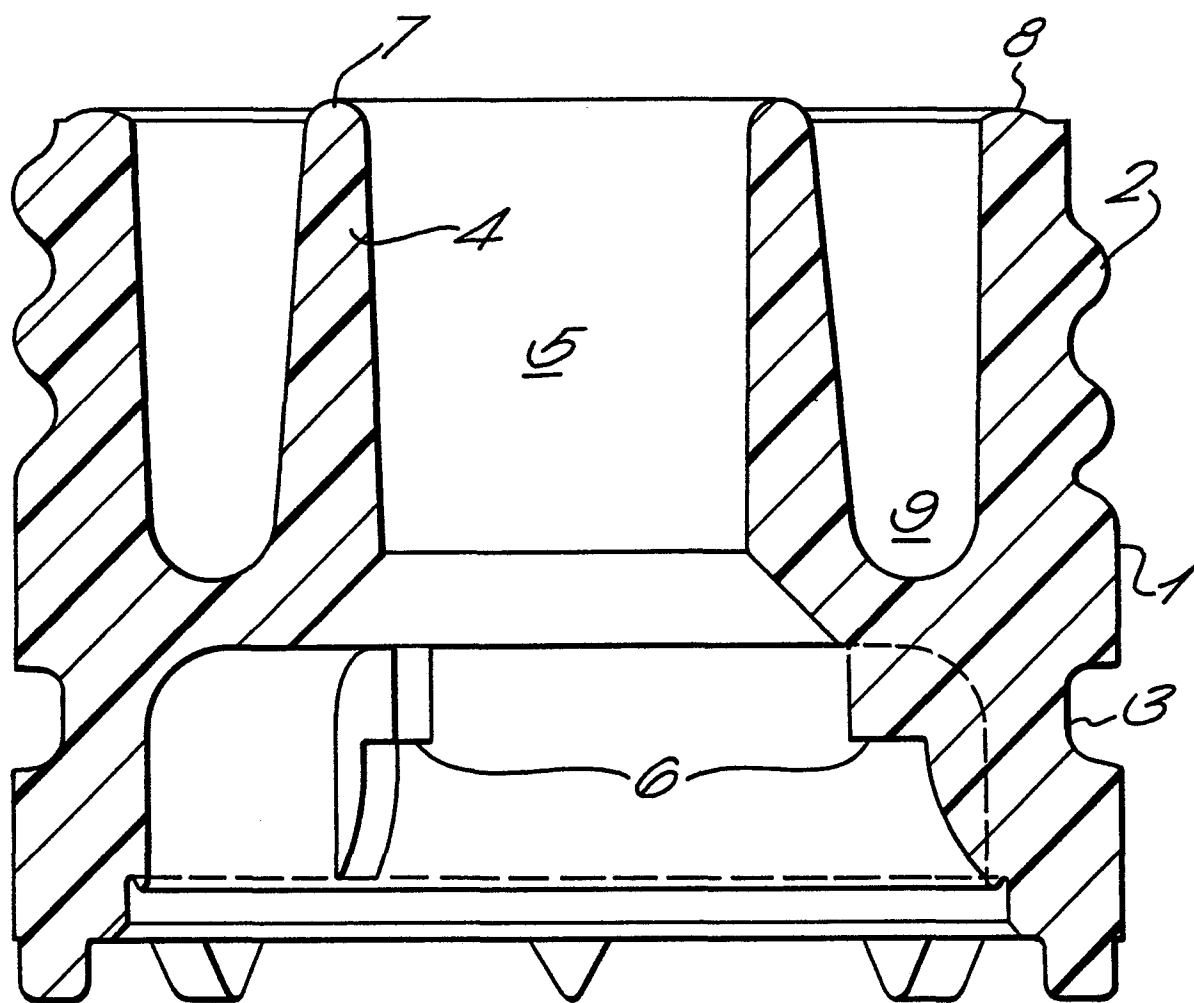
5 An embodiment of the invention is illustrated in the accompanying drawing, which is a sectional elevation of a pourer attachment.

Referring to the drawing, the attachment comprises an outer annular wall 1 having a screw thread 2 for engagement
10 with a complementary thread formed on a closure cap. An annular recess 3 is formed in the wall 1, in order that the valve may be attached to a bottle in the manner described in our Application No.932/77. An inner annular wall 4 surrounds a bore 5, through which liquid may be discharged
15 when a bottle fitted with the non-return valve is inverted. Refilling of the bottle is prevented by a valve member (not shown) which moves between a valve seat formed in the inner valve component (not shown) and valve seats 6 formed at spaced intervals around the inside of the lower part of the
20 annular wall 1. The outer extremity of wall 5, shown at 7, is slightly higher than the top 8 of wall 1. Thus, when a closure cap is applied to the fitment a seal is obtained between the inside of the top of the cap (which may be covered with sealing compound) and the top 7 of the
25 wall 4. Since, therefore, the top 8 of the wall 1 does not have to make a primary seal with the cap, the top portion of the wall 1 need not be formed to perfection.

An annular well 9 is formed between the walls 1 and 4, so that should any liquid in fact escape from the
30 bore 5 upon the initial opening of the bottle, this liquid will flow into the well 9 and will not spill out. However, this liquid will be discharged once the bottle is tilted for the purpose of pouring, so that there is no accumulation of liquid in the annular well.

CLAIMS:

1. A pourer attachment for use in a non-return valve fitment for a container which comprises a one-piece moulding having outer and inner annular walls, the outer annular wall having means for engagement therewith of complementary means
5 on a closure cap whereby said cap may be attached to said pourer attachment, the inner annular wall defining a pouring outlet, and the outer and inner annular walls defining between them an annular well.
2. A pourer attachment as claimed in claim 1 wherein the
10 outer extremity of the inner annular wall stands proud of the outer extremity of the outer annular wall, so that when a closure cap is applied to the attachment a primary seal is obtained between the top of the inner wall and the inside of the top of the cap.
- 15 3. A pourer attachment as claimed in claim 1 wherein the inner and outer walls are of the same height and a sealing wad or disc situated between the top of the inner wall and the cap forms a primary seal.
4. A pourer attachment as claimed in claim 1, substantially
20 as described with reference to the drawing.
5. A non-refillable fitment for a container comprising inner and outer members joined together with a movable valve member retained therebetween, characterised in that the
25 outer member is a pourer attachment as claimed in any of claims 1 to 4.





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	FR - A - 855 726 (DOUCET) * Page 1, lines 42-55; figure 1 * -- US - A - 2 979 239 (COLLINS) * The whole document * -- US - A - 3 339 772 (MILLER) * Column 3, lines 1-12; figures 1-5 * --	1,4,5 1,2,4 1,3,4	B 65 D 49/00
			TECHNICAL FIELDS SEARCHED (Int.Cl. ³)
			B 65 D
AP	FR - A - 2 421 118 (V.G. GLOSURES & PLASTICS LTD.)	1	
AD	GB - A - 835 507 (N.R. FITMENTS LTD.)	1	

			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
			& member of the same patent family. corresponding document
☒ The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		12-05-1980	BAERT