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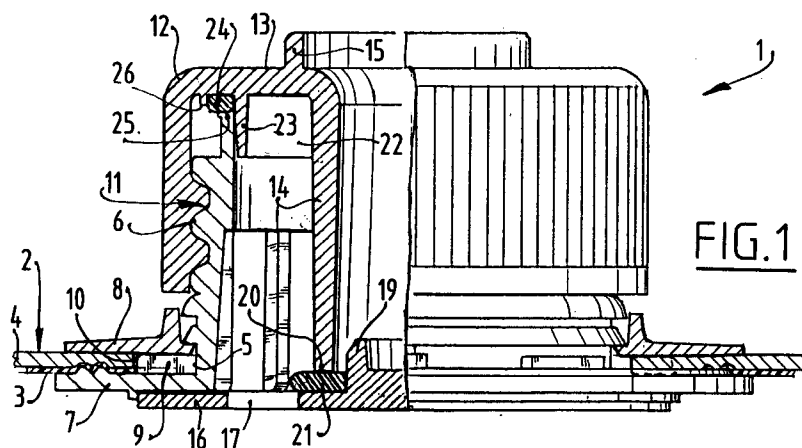
0 527 532 A1

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17.02.93 Bulletin 93/07**Zuideinde 161****NL-1551 EE Westzaan(NL)**(84) Designated Contracting States:
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NL-1551 RR Westzaan(NL)**Octrooibureau Arnold & Siedsma****Sweelinckplein, 1****NL-2517 GK The Hague (NL)**(54) **Packaging.**

(57) The invention relates to a packaging comprising an envelope (2) with an opening (5); a neck (6) connecting onto the opening and having a cap (12) arranged on the neck; and a valve closing off the opening, which valve comprises a valve body (16) extending over the opening and provided with at

least one passage (17), and an internal channel (14) which is arranged in the cap and which extends over the passage and whereof a channel edge (20) forms a valve seat for the valve body. In preference a distance a of the valve seat to the valve body is adjustable.

**FIG.1****EP 0 527 532 A1**

The present invention relates to a packaging which comprises an envelope for receiving a medium, such as a gas and/or liquid, via a neck which is closable using a cap.

The invention has for its object to improve such a packaging in the sense that the packaging can be rapidly filled with medium or rapidly emptied of medium and the medium pressure in the packaging can thereafter be adjusted to a predetermined value. This is achieved with a packaging according to the invention which comprises an envelope with an opening; a neck connecting onto the opening and having a cap arranged on the neck; and a valve closing off the opening, which valve comprises a valve body extending over the opening and provided with at least one passage, and an internal channel which is arranged in the cap and which extends over the passage and whereof a channel edge forms a valve seat for the valve body.

Rapid filling and emptying of the packaging is realized by removing the cap on the neck, and therewith the channel edge, from the valve body, thereby resulting in a comparatively large medium passage.

Bringing the packaging to an exact pressure is realized by displacing the cap over the neck such that the channel edge makes closing contact with the valve body. By subsequently exerting medium pressure on the valve body via the channel the valve body will be temporarily pressed away from the channel edge until the medium pressure is balanced. If the medium pressure in the packaging is greater, the medium pressure in the packaging can be reduced by temporarily lifting the valve body from the channel edge using a tool.

A favourable packaging according to the invention results if a distance a of the valve seat to the valve body is adjustable. This is preferably achieved when the cap is arranged on the neck via a screw thread connection. The distance a is thus adjustable by rotating the cap to a greater or lesser extent onto the neck.

An optimal valve body results if more preferably the valve body is a disc with passages arranged therein distributed over the periphery. When a pressure is applied to the valve body the disc is thus raised over its whole periphery from the channel edge.

If the medium pressure in the packaging has to be reduced by temporarily lifting the valve body from the channel edge, it is recommended that the valve body is provided with a raised portion extending into the cap channel. The raised portion can thus serve as the tool intended for lifting the valve body.

In order to effect a good operation of the valve it is further recommended to locate round the

raised portion a sealing ring with which the channel edge co-acts. An optimum sealing is obtained in the packaging according to the invention if the cap is provided with a sealing ring which co-acts with a neck edge enclosed by the cap.

The packaging according to the invention can be assembled easily and rapidly if more preferably the neck is fixed to the envelope using a closing ring.

Mentioned and other features of the packaging according to the invention will be further described hereinafter in the light of the description of an embodiment given by way of example, wherein reference is made to the annexed drawing.

In the drawing:

figures 1-3 each show a partly broken away side view of a packaging according to the invention with the valve in the different valve positions; and

figure 4 is a perspective view of a valve body that is used in the packaging according to the invention.

Figures 1-3 show a packaging 1 according to the invention. The packaging comprises an envelope 2 consisting of a plastic inner lining 3 and an outer lining 4 of cardboard. It will however be apparent that an envelope 2 consisting exclusively of a plastic or other suitable material can likewise be used. The envelope 2 is provided with an opening 5 through which extends a neck 6 which is fixed using a neck flange 7 to the envelope 2, in particular to the inner lining 3. A coupling of this assembly to the outer lining 4 is realized using a closing ring 8, wherein protrusions arranged spread over the periphery of the neck 6 lie in recesses 10 of outer lining 4. It will be apparent that the neck can likewise be applied in an envelope wherein the neck flange is fixed directly to the envelope 2.

A cap 12 is arranged on the neck 6 by means of a screw thread connection 11. An internal channel which extends to the inside and adjoins a locating edge 15 is arranged in the central portion 13 of cap 12.

A disc-shaped valve body 16 is fixed to the neck 6 at the height of the flange edge 7. As shown in figure 4, the valve body 16 comprises eight passages 17 arranged spread over the periphery around a raised portion 19 provided with a recess 18. The passages 17 are positioned such that they lie in the space bounded by the channel 14 and the neck 6.

A channel edge 20 resting on a flat sealing ring 21 functions as valve seat.

A correct sealing of the cap space 22 which is in contact with the interior of the packaging 1 is further effected by means of an internal cap strip which lies against the inner surface of the neck and around which is arranged a sealing ring 24 which

rests against a neck edge 25. A rib 26 prevents undesired displacement of the sealing ring 24.

Figure 2 shows the situation in which medium under pressure is supplied via the channel 14 to the packaging 1 as according to the arrow 27. The valve body 16 will therein be displaced in the direction of arrow 28 whereby a space is created between the channel edge 20 on one side and the sealing ring 21 on the other. Via this gap 29 medium can pass further via the passages 17 into the packaging 1. A desired medium pressure can thus be accurately applied in packaging 1.

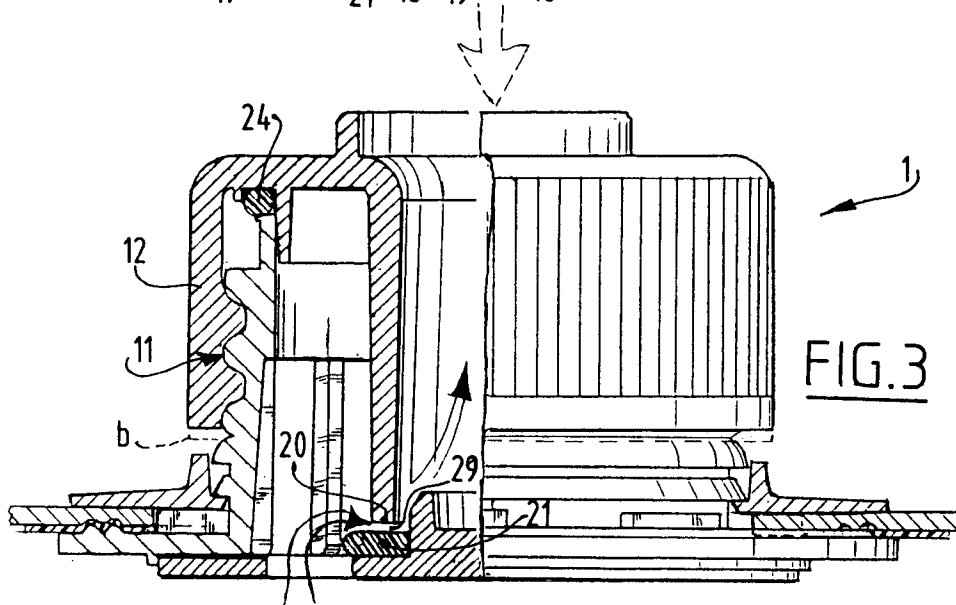
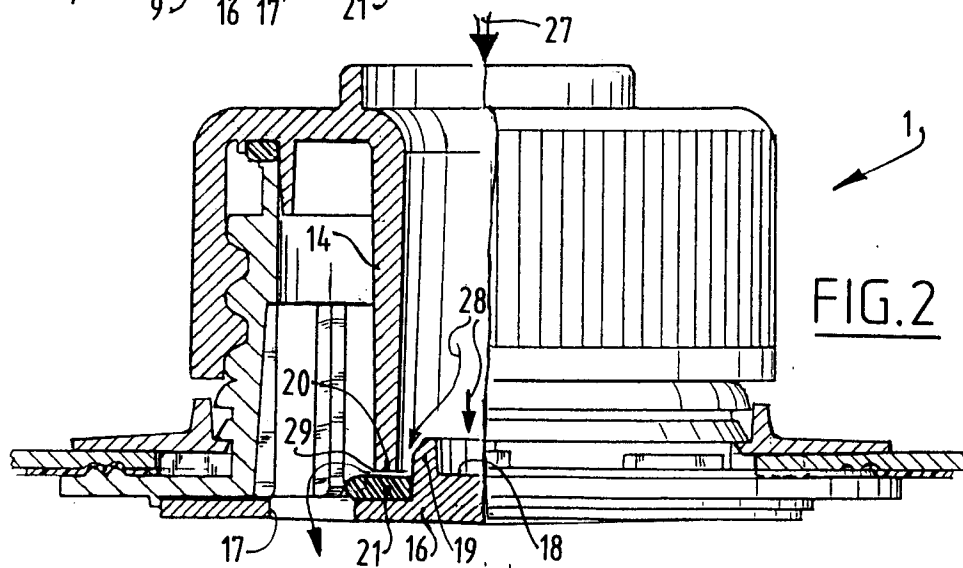
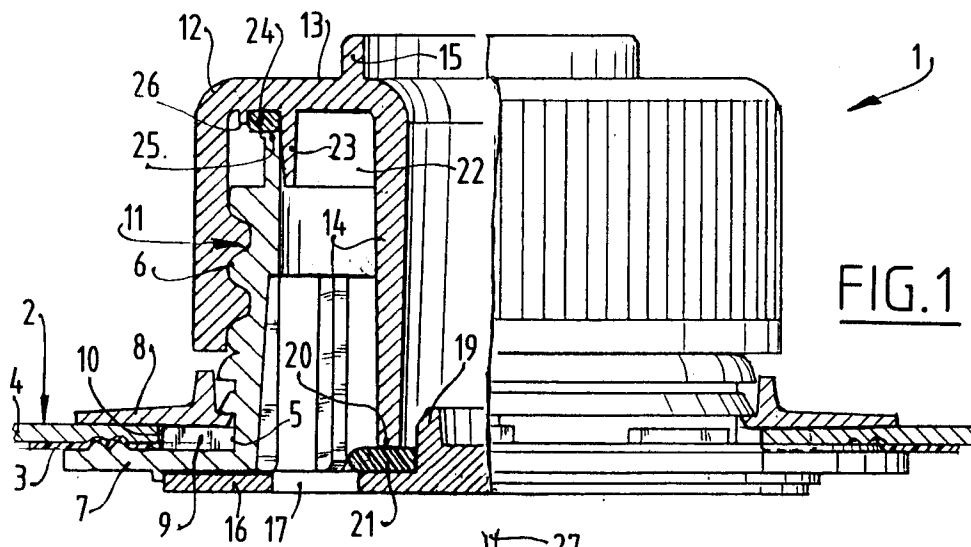
It will be apparent that the medium pressure in the packaging 1 can also be reduced relatively accurately by lifting the valve body 16 from the channel edge 20 in the direction of arrow 28 using a tool that supports in the recess 18 of raised portion 19.

Figure 3 shows the situation in which medium can be carried rapidly in and out of the packaging 1. To this end the cap 12 is screwed upward through a distance b , whereby a comparatively wide gap 29 is created between the channel edge 20 and sealing ring 21, along which gap medium can pass rapidly into and out of the packaging 1. Due to the seal using the sealing ring 24 a controlled entry and exit of medium remains ensured. Leakage along the screw thread connection 11 is herein avoided.

It is noted that precise setting of the medium pressure in the packaging is adjustable by screwing the cap 12 to a greater or lesser extent onto the neck 6.

Claims

5. Packaging as claimed in claims 1-4, wherein the valve body is provided with a raised portion extending into the cap channel.
 6. Packaging as claimed in claim 5, wherein a sealing ring with which the channel edge co-acts is located round the raised portion.
 7. Packaging as claimed in claims 1-6, wherein the cap is provided with a sealing ring which co-acts with a neck edge enclosed by the cap.
 8. Packaging as claimed in claims 1-7, wherein the neck is fixed to the envelope using a closing ring.
1. Packaging comprising an envelope with an opening; a neck connecting onto the opening and having a cap arranged on the neck; and a valve closing off the opening, which valve comprises a valve body extending over the opening and provided with at least one passage, and an internal channel which is arranged in the cap and which extends over the passage and whereof a channel edge forms a valve seat for the valve body.
 2. Packaging as claimed in claim 1, wherein a distance a of the valve seat to the valve body is adjustable.
 3. Packaging as claimed in claim 2, wherein the cap is arranged on the neck via a screw thread connection.
 4. Packaging as claimed in claims 1-3, wherein the valve body is a disc with passages arranged therein distributed over the periphery.



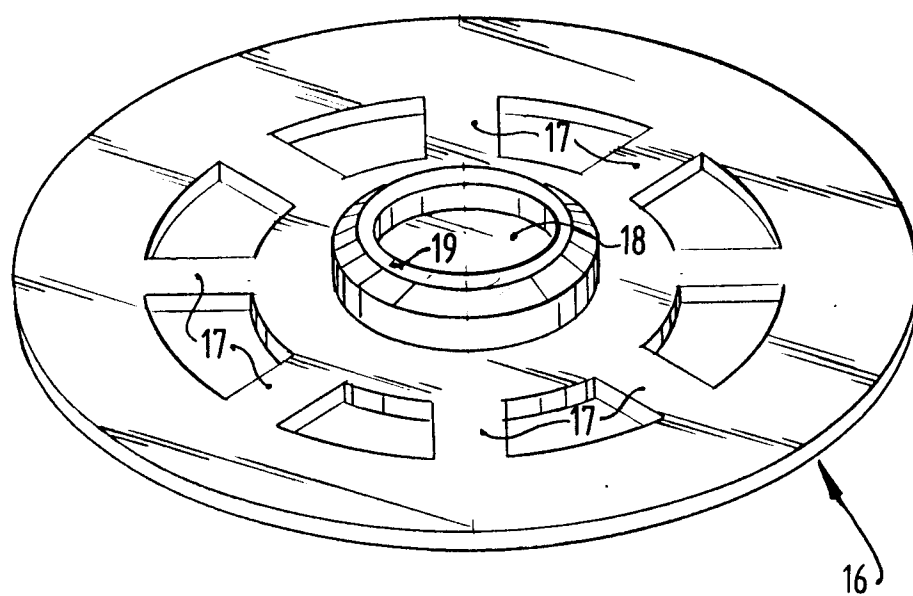


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number

EP 92 20 2382

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)
X	FR-A-1 370 761 (SOCIÉTÉ BORDELAISE DE MATIÈRES PLASTIQUES) * page 1, right column, line 9 - page 2, right column, line 33 * * page 3, left column, line 49 - line 55; figures 1-4 *	1-5	B65D47/24 B65D77/06
X	FR-A-1 368 819 (SEIDMAN) * page 3, left column, line 12 - page 4, left column, line 13; figures 3,4 *	1-4	
X A	US-A-4 497 422 (KLEES) * the whole document *	1-3 6,7	
X	DE-A-3 727 789 (CREATECHNIC DEVELOPMENT AG) * the whole document *	1-3	
A	BE-A-736 174 (COPIRA) * page 11, line 20 - page 13, line 6; figures 25-28 *	1	
A	DE-U-9 001 821 (SIEGER) * figure 1 *	8	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5) B65D B67D
Place of search THE HAGUE		Date of completion of the search 23 NOVEMBER 1992	Examiner MARTENS L.G.R.
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			