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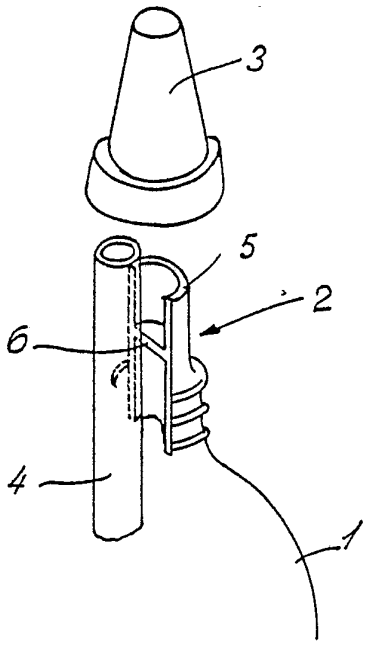
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Published
With international search report.

(54) Title: RECEPTACLE WITH SCREW CAP

(57) Abstract

By a receptacle (1) in which the pressure can be changed by squeezing for the dosing through a nozzle outlet (2) of the contains, and in which the nozzle outlet can be closed by a screw cap (3), the interior of the receptacle is connected with the nozzle opening via a compressible tube (4) leading through the nozzle. The nozzle has two slots passing through the opening and situated opposite each other. On the two nozzle walls (5) separated by the slots are found two projections facing each other (6). When the screw cap (3) is affixed in such a manner that the slots are squeezed together, the projections (6) will exert such pressure on the tube (4) that passage even of liquids of low viscosity is prevented.



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RECEPTACLE WITH SCREW CAP.

The invention relates to a receptacle e.g. of a tube type of a kind in which the pressure in the interior can be manually changed, preferably by squeezing of the recepacle for the dosing of a contained medium through an outlet nozzle the opening of which can be closed by a screw cap.

When the medium in the container is a paste or a sluggish liquid it is generally sufficient to close the receptacle by tightening the screw cap. In case of liquids of low viscosity such as lock lubricators it is, however, when the cap has been removed and replaced a certain number of times no longer possible to obtain a secure tightening.

The object of the invention is to devise a receptacle of the described character in which it will be feasible in a simple and inexpensive way to ensure a tight closing when replacing the screw cap.

This is according to the invention achieved in that the receptacle interior is connected with the nozzle outlet via an elastic resilient tube leading through the nozzle, and that the outlet nozzle is provided with two slots passing from the opening and situated opposite each other, and that on the two nozzle walls separated by the slots are found two projections facing each other, which when the screw cap is affixed in such a manner that the slots are squeezed together will exert pressure against the tube and thus prevent the passage through the latter.

By a suitable choice of tube material and dimensions in connection with the dimensioning of slots and projections it will be easy to ensure a safe tightening of the described receptacle when the screw cap is replaced. When the screw cap is removed and pressure is exerted on

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the medium in the container, the pressure thus produced in the tube will take the two projections apart, so that the medium contained can flow through the tube.

It is according to the invention advantageous that the receptacle can be divided in two parts along the line of the slots, and that the tube constitutes a part of a detachable bag placed in the receptacle. This allows an easy refilling of the receptacle simply by replacement of the bag, which compared to the container as such is inexpensive.

Thus the tube may be of such a length that part of the bag will protrude out of the nozzle opening, this part will be closed but intended for cutting off, when the bag is placed in the receptacle.

In the following the invention is described in detail with reference to the drawing showing in perspective one half of the upper section of the receptacle.

The described receptacle 1 is compressible in such a manner that a medium contained in the interior can be exausted through a nozzle 2. The opening of the nozzle, which can be closed by means of a screw cap 3 is connected with the interior of the receptacle 1 via a resilient tube 4 leading through the nozzle. The nozzle 2 is slotted in axial direction, and on the two nozzle walls separated by opposite situated slots are found projections 6 facing each other. When the screw cap 3 is placed over the nozzle 2 in such a manner that the slots are squeezed together, the two projections 6 will compress the tube 4, and prevent passage through the latter.

When the cap 3 is removed, and pressure exerted on the medium contained in the receptacle 1, the liquid will flow through the tube 4 as this is distended and squeeze the projections 6 apart.

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To ensure stability the wall of the receptacle is comparatively thick. By designing the receptacle so that it can be divided in two along the line of the nozzle slots and make the tube part of a bag, which is easily inserted detachably in the receptacle 1, it will be achieved that the receptacle can be easily refilled by replacement of the bag.

The bags for the purpose can on the other hand be manufactured of a very light material and at a low price.

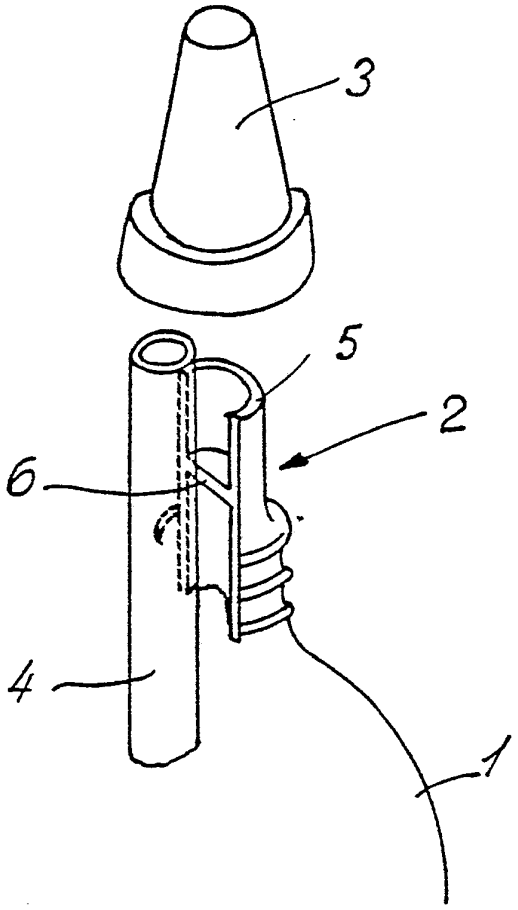
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PATENT CLAIMS

1. Receptacle e.g. of a tube type of a kind in which the pressure in the interior can be manually changed, preferably by squeezing of the receptacle (1) for the dosing of a contained medium through an outlet nozzle (2) the opening of which can be closed by a screw cap (3), c h a r a c t e r i z e d in that the interior of the receptacle is connected with the nozzle outlet via an elastic resilient tube (4) leading through the nozzle, and that the outlet nozzle is provided with two slots passing from the opening and situated opposite each other, and that on the two nozzle walls (5) separated by the slots are found two projections (6) facing each other, which when the screw cap is affixed in such a manner that the slots are squeezed together will exert pressure against the tube (4) and thus prevent passage through the latter.

2. Receptacle according to claim 1, c h a r a c t e r i z e d in that the receptacle can be divided in two parts along the line of the slots, and that the tube (4) constitutes a part of a detachable bag placed in the receptacle.

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INTERNATIONAL SEARCH REPORT

International Application No PCT/DK82/00058

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) [3]

According to International Patent Classification (IPC) or to both National Classification and IPC 3

B 65 D 25/40, 47/12

II. FIELDS SEARCHED

Minimum Documentation Searched [4]

Classification System	Classification Symbols
IPC 3	B 65 D 5/40,25/14-25/18,25/38-25/42,47/06,47/12,83/00, 83/06,85/72,85/80
National Cl	81c:22; 81c:27 .../...

Documentation Searched other than Minimum Documentation to the Extent that such Documents are included in the Fields Searched [5]

SE, NO, DK, FI classes as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT [14]

Category *	Citation of Document, [16] with indication, where appropriate, of the relevant passages [17]	Relevant to Claim No. [18]
A	SE, B, 328 821 (H.A. RAUSING), 21 November 1970	
A	CH, A, 412 700 (R. KUSTER), 30 November 1966	
A	DE, A, 2 218 481 (K. LICE), 25 October 1973	
A	FR, A, 1 331 886 (H. FREEMAN), 24 August 1962	
A	FR, A1, 2 399 956 (DOUWE EGBERTS KONINKLIJKE TABAKSFABRIEK+KOFFIEBRANDERIJEN-THEEHANDEL B.V.), 7 August 1978	
A	US, A, 3 021 991 (M. COHEN ET AL.), 20 February 1962	

* Special categories of cited documents: [15]

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search [2]: 1982-10-06

Date of Mailing of this International Search Report [2]: 1982 -10- 18

International Searching Authority [1]: Swedish Patent Office

Signature of Authorized Officer [11]: Helena Akerlund

Helena Akerlund

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Form PCT/ISA/210 (second sheet) (October 1981)

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

II Continuation Fields Searched.

US Cl 222:544, 562, 566, 575
229:7
206:277

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE [10]

This International search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. ☐ Claim numbers . . because they relate to subject matter [12] not required to be searched by this Authority, namely:

2. ☐ Claim numbers . . , because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out [13], specifically:

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING [11]

This International Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.

2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:

3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:

4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee

Remark on Protest

☐ The additional search fees were accompanied by applicant's protest.

☐ No protest accompanied the payment of additional search fees.

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