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(71) Applicant: **RPC CONTAINERS LIMITED**
Raunds, Northamptonshire NN9 6ED (GB)

(72) Inventor: **Martin, Colin**
Colchester, Essex, C06 2JA (GB)

(74) Representative: **Waldren, Robin Michael**
MARKS & CLERK,
57-60 Lincoln's Inn Fields
London WC2A 3LS (GB)

(54) Dispensing closure

(57) A dispensing closure 1 has a cap part 3 and a spout part 5. The spout part 5 has an inlet 31 and an outlet 29. An angled passage 27 leads from the inlet to the outlet. The spout part 5 comprises a pivot member 33 having a surface 32 of convex curvature at which the inlet 31 terminates. First and second pivots 43, 45 are located at respective ends 47, 49 of the pivot member 33, on the axis of curvature. The cap part 3 has an internal surface of concave curvature complementary with the surface 32 of convex curvature of the first member. The concave surface 17 has an opening 19. At least one leg 37 of the angled passage 27 extends through the pivot member 33 from the inlet 31. The convex surface 32 of the pivot member 33 is rotatable in cooperation with the concave surface 17 of the cap part 3. When the spout part 5 is in a raised open position, the inlet 31 is aligned with the opening 19 of the cap part.

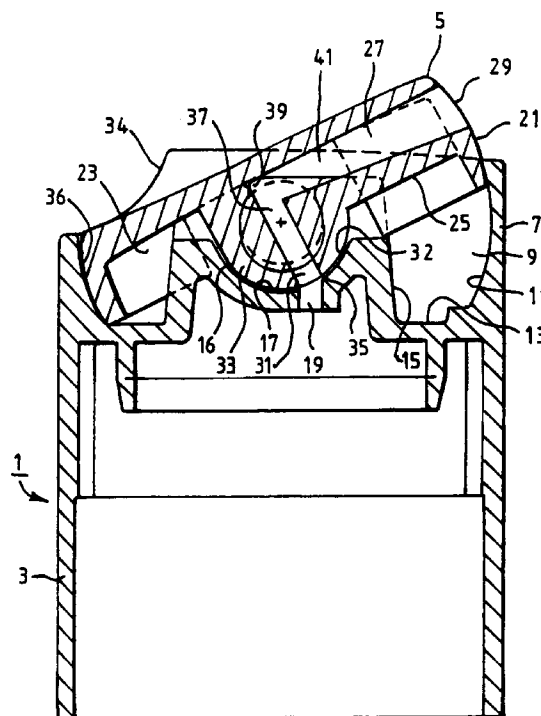


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 96 30 2004

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.6)
X Y	NL-A-8 105 763 (VAN MEGEN) * figure 3 *	1 2,4,5,7, 9	B65D47/30
D,Y	--- GB-A-1 122 474 (HODDING) * page 2, line 10 - page 3, line 73; figures 1-4 *	2,5,7,9	
Y	--- EP-A-0 314 891 (WEENER PLASTIK) * column 8, line 21 - line 36; figures 4,5 *	4,5,7,9	
A	--- US-A-3 874 568 (LA VANGE) * the whole document *	1-3,10	
A	--- GB-A-1 308 674 (LIBIT) * page 3, line 59 - line 79; figures 1-4 *	1-3,10	
A	--- GB-A-971 029 (LIBIT) * page 5, line 117 - page 6, line 8; figures 1-7 *	1-3,10	
P,X	--- WO-A-95 11172 (ZELLER) * page 5, line 30 - page 8, line 13; figures 1-6 *	1,2,5, 7-9	B65D
D,A	--- GB-A-2 090 820 (DRDLIK) -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 October 1996	Examiner Martens, L
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

☒ LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

See Sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respects of which search fees have been paid, namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims



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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

- I) It is considered that there are two inventions claimed in the present application, covered by the following groups of claims :
1. Claims 1-9 : A dispensing closure comprising a cap part and a spout part with an angled passage, whereby the spout part comprises a pivot member having a surface of convex curvature and the cap part comprises an internal surface of concave curvature complementary with the surface of convex curvature of the pivot member, the convex surface of the pivot member being rotatable in cooperation with the concave surface of the cap part.
 2. Claim 10 : A dispensing closure comprising a cap part and a spout part mounted pivotally within the cap part, whereby the pivot means comprise mutually cooperating formations defining detent means.
- II) a) Analysis of the formally independent claims 1 and 10 shows that they contain only the following common technical features :
- a dispensing closure comprising a cap part and a spout part;
 - the spout part being pivotally mounted within the cap part by pivot means.
- These features are considered as belonging to the prior art as illustrated by the documents cited by applicant in the present application.
- b) Any of the remaining technical features are considered as special technical features. These are:
- for claim 1 : the angled passage in the spout part and the cooperating surfaces of the cap part and the spout part having complementary convex and concave curvatures;
 - for claim 10: the detent means provided on the pivot means.
- These special technical features are neither common to any of the 2 independent claims nor are they the same or corresponding, so that there is no technical relationship among the two inventions.
- c) Furthermore, the two inventions solve two different problems :
- claim 1 : Enhancing the seal between the spout part and the cap part of the closure.

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

- claim 10 : providing a positive indication of the spout part being oriented in a predetermined position.

d) For all these reasons, the two inventions are not so linked as to form a single general inventive concept. Therefore, the application does not meet the requirements of Article 82 EPC.

III) The search has been performed for the first invention only.
However, if a further search fee is paid, the search report could be completed accordingly.