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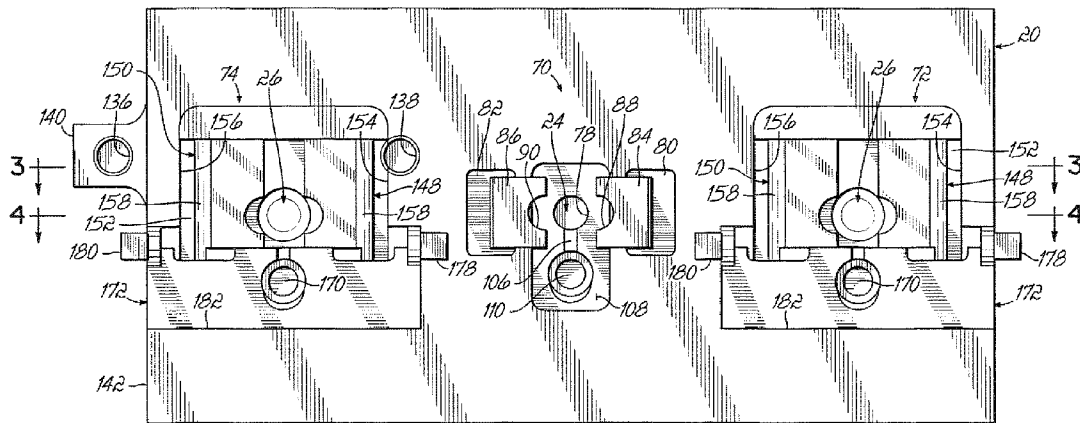
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(54) Title: APPARATUS AND METHOD FOR FORMING A CONTAINER HAVING A RECEPTACLE AND AN INTEGRAL CAP AND PRODUCT FORMED THEREBY



(57) Abstract: An apparatus (10) for forming a container (12) generally comprises a first mold part (20) having an injection mold portion (70) and a blow mold portion (72, 74) and a second mold part (22) having a core pin (30, 32). The core pin (30, 32) is configured to cooperate with the injection mold portion (70) in a first position to define an injection mold cavity (24) for forming a preform (124) and an integral cap (16). The core pin (30, 32) is also configured to cooperate with the blow mold portion (72, 74) in a second position to define a blow mold cavity (26) for forming a receptacle (14) from the preform (124). The cap (16) may be closed at the blow mold portion (72, 74) to seal the receptacle (14). One or more threads (18) may be formed on a neck (126) of the container (12).

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INTERNATIONAL SEARCH REPORT

International application No.

/US07/75149

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **B29C 49/20(2006.01),49/32(2006.01)**

 USPC: 264/513,533,534
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 264/513, 533, 534

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST preform parison inject injection cap cover

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,662,245A (GRANT) 2 September 1997 (02.09.1997) see entire document	1, 3, 5
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Y		2, 4, 6-8, 14-19, 21, 22
Y	US 3,086,249A (NELSON et al.) 23 April 1963 (23.04.1963) see entire document	1-8, 14-19, 21, and 22
Y	US 5,008,066A (MUELLER) 16 April 1991 (16.04.1991) see entire document	1-8, 14-19, 21, and 22

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
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INTERNATIONAL SEARCH REPORT

International application No.

/US07/75149

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

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

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
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, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
 2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
 3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

 4. 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 claims Nos.: 1-22
- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

/US07/75149

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This International Search Authority has found 2 inventions claimed in the International Application covered by the claims indicated below:
Group I, claim(s) 1-22, drawn to a method and apparatus.

Group II, claim(s) 23-25, drawn to a product.

1. This International Searching Authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below:
The inventions listed as Groups I,II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: group II could be made by a blow molding and compression molding method and apparatus. It does not require the special technical feature of injection molding both the preform and the cap together.