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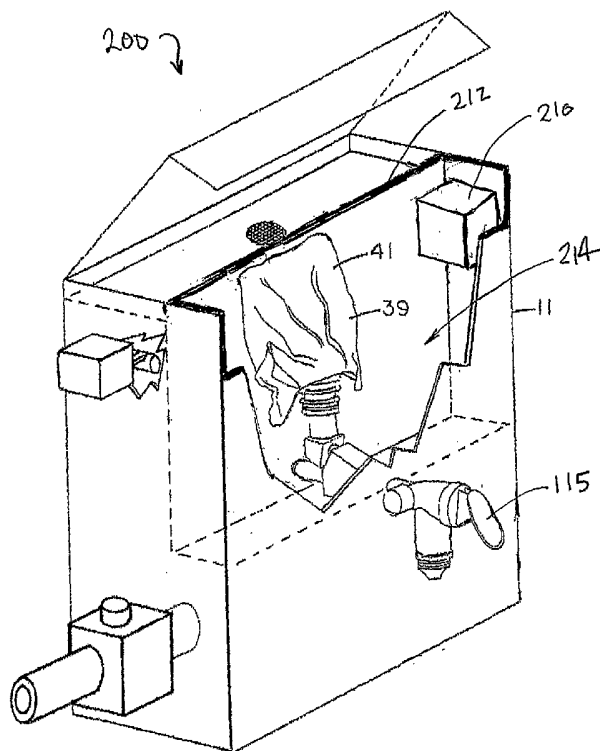
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[Continued on next page]

(54) Title: APPARATUS AND METHODS FOR PRODUCING A BEVERAGE



(57) Abstract: An apparatus for producing a beverage from a liquid concentrate and water includes a water tank (25), a concentrate container (39), and a mixing chamber (79, 479). A water conduit (69, 469) supplies water from the water tank (25) to the mixing chamber (79, 479) by gravity and a concentrate conduit (51, 451) supplies the liquid concentrate from the concentrate container (39) to the mixing chamber (79, 479) by gravity. A dispenser assembly (103) releases the water from the water conduit (69, 469) and the liquid concentrate from the concentrate conduit (51, 451) into the mixing chamber to produce the beverage. In another embodiment, an apparatus includes a sealable chamber (214, 414), and an air pump (210, 410) for pressurizing the sealable chamber and the concentrate container (39). A dispenser and methods for producing a beverage from a liquid concentrate and water are also disclosed.

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# INTERNATIONAL SEARCH REPORT

International application No <b>PCT/US2006/000238</b>
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**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. A47J31/40 B67D1/14

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)  
 A47J B67D

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 practical, search terms used)  
 EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 843 020 A (BARDEAU W, US ET AL) 22 October 1974 (1974-10-22)	1-4, 7, 11-13, 15, 18-20, 29-31, 42-45
Y	column 4, line 45 - column 10, line 57; figures 1-5	8, 14, 28-34, 36-41
X	----- US 3 105 616 A (KRUP DONALD E) 1 October 1963 (1963-10-01) column 1, line 70 - column 4, line 60; figures 1-3,5	1-3, 5-11, 16
Y	-----	22, 23, 27, 36-41
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Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*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)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>	<p>*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</p> <p>*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</p> <p>*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.</p> <p>*Z* document member of the same patent family</p>
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Date of the actual completion of the international search <b>3 August 2006</b>	Date of mailing of the international search report <b>11/08/2006</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>Lehe, J</b>
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## INTERNATIONAL SEARCH REPORT

International application No  
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3 790 029 A (WARD W,US) 5 February 1974 (1974-02-05) column 2, line 34 - line 49; figure 1 -----	14
Y	US 3 001 557 A (KUCKENS ALEXANDER) 26 September 1961 (1961-09-26) column 2, line 42 - line 53; figure 2 -----	8,26,35
X	US 5 011 700 A (GUSTAFSON ET AL) 30 April 1991 (1991-04-30) column 4, line 14 - column 7, line 35; figures 1-6	17,21,32
Y	-----	22-35, 46-51
Y	DE 41 08 586 A1 (SCHENK, HELGA, 7517 WALDBRONN, DE) 17 September 1992 (1992-09-17) column 2, line 29 - column 4, line 6; figures 1,2 -----	46-51
Y	EP 1 095 898 A (S.O.B. PARTNERSHIP) 2 May 2001 (2001-05-02) column 4, line 15 - column 5, line 14; figure 1 -----	24,25

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2006/000238

## Box 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 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:

see additional 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 an additional fee, this Authority did not invite payment of any additional fee.
  
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.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16,18-20,36-45

stopper for opening and closing the concentrate and the  
water opening  
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2. claims: 17,21-35,46-51

pressurized bag  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2006/000238
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Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 3843020	A	22-10-1974	NONE	
US 3105616	A	01-10-1963	NONE	
US 3790029	A	05-02-1974	NONE	
US 3001557	A	26-09-1961	NONE	
US 5011700	A	30-04-1991	NONE	
DE 4108586	A1	17-09-1992	AT 133395 T	15-02-1996
			AU 1355192 A	21-10-1992
			WO 9216450 A1	01-10-1992
			EP 0575382 A1	29-12-1993
			JP 6505316 T	16-06-1994
EP 1095898	A	02-05-2001	US 6253960 B1	03-07-2001