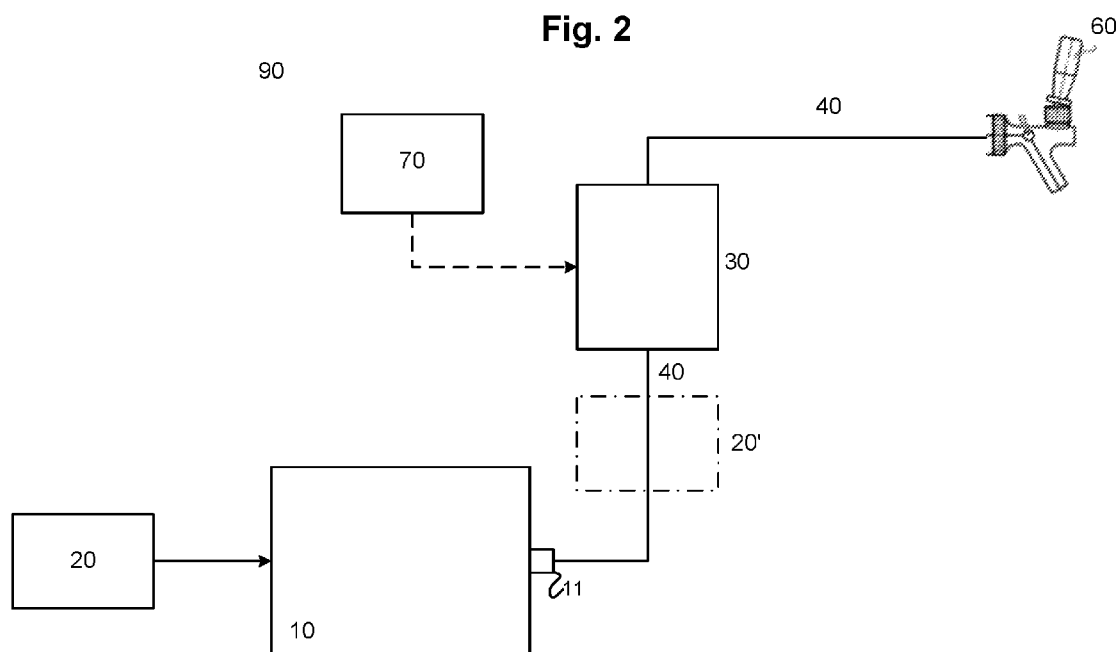




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- (71) Applicant: O.D.L. S.R.L. [IT/IT]; Via Ciserino 4A, 23827 Lierna (LC) (IT).
- (72) Inventor: RENZI, C/O O.D.L. S.R.L., Massimiliano.
- (74) Agent: HOFFMANN EITLE PATENT- UND RECHTSANWÄLTE PARTMBB et al.; Arabellastraße 30, 81925 Munich (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,

(54) Title: DISPENSER FOR GAS-CONTAINING BEVERAGES, DISPENSING METHOD AND COMPUTER PROGRAM



(57) **Abstract:** A device (90) for on-site dispensing of a beverage containing a liquid and a gaseous substance dissolved therein is described, the device comprising a dispensing means (60), and a conduit (40) for supplying the beverage to said dispensing means (60), wherein said conduit (40) is configured to be connected to a container (10) suitable for containing at least liquid for obtaining said beverage. The device further comprises a pushing means (20, 20') for imparting to the beverage a push sufficient to enable the dispensing of the beverage via said dispensing means (60) according to a predetermined dispensing condition. Furthermore, the device can comprise a pressure modulating means (30) for modulating the pressure in the conduit, a means for reducing the pressure to be introduced into the container, and a compensation means for improving the operation of the device on the basis of one or more automatic controls thereof.

SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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- *with international search report (Art. 21(3))*
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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER

INV. B67D1/08 B67D1/04 B67D1/12
ADD.

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)
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 practicable, search terms used)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 454 904 A (OSWALD TOM [GB]) 27 May 2009 (2009-05-27)	1-8,10, 11,14, 15,30
A	page 2, paragraph 4 - page 3, paragraph 4 page 4, paragraphs 1,2 page 6, paragraph 1 page 9, paragraph 2 - page 10, paragraph 2 page 12, paragraph 1 - page 13, paragraph 1; figures	9,12,13
A	----- WO 02/33270 A2 (SECURE CONCEPTS LTD [US]; TABACCHI OTAVIO R [US]; SMITH H MICHAEL [US]) 25 April 2002 (2002-04-25) page 4, line 2 - page 5, line 18; figures ----- -/--	1,11,16, 27,29, 31,38, 41,44



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

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"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 when the document is taken alone

"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

Date of the actual completion of the international search

6 November 2017

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2017/052011

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:

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 fees, this Authority did not invite payment of 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.:

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
PCT/IB2017/052011

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/080142 A1 (MEHEEN DAVID [US]) 1 May 2003 (2003-05-01) paragraphs [0023], [0028], [0037]; figures -----	16,27,29
Y	WO 2015/015275 A1 (ODL SRL [IT]) 5 February 2015 (2015-02-05)	31-40
A	page 2, paragraph 3 - page 3, paragraph 3 page 7, paragraph 4 - page 8, paragraph 3; figure 1b -----	41,44,45
Y	FR 2 659 314 A1 (KIRIN BREWERY [JP]) 13 September 1991 (1991-09-13) page 25, line 9 - page 26, line 15 page 34, line 6 - page 37, line 16; figure 4 -----	31-40

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-15, 30

A beverage dispenser with pressure modulating means and a method

2. claims: 16-29

A beverage dispenser with foam indication and partialization means and a method

3. claims: 31-46

A beverage dispenser with pressure compensating and measuring means to vary the flow rate

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2017/052011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2454904	A	27-05-2009	NONE	

WO 0233270	A2	25-04-2002	AU 3294402 A	29-04-2002
			US 2002088823 A1	11-07-2002
			WO 0233270 A2	25-04-2002

US 2003080142	A1	01-05-2003	NONE	

WO 2015015275	A1	05-02-2015	DE 212014000162 U1	01-04-2016
			WO 2015015275 A1	05-02-2015

FR 2659314	A1	13-09-1991	NONE	
