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- (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, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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(54) **Title:** ATOMISING DEVICE, ATOMISING BODY AND METHOD OF MANUFACTURING THE SAME

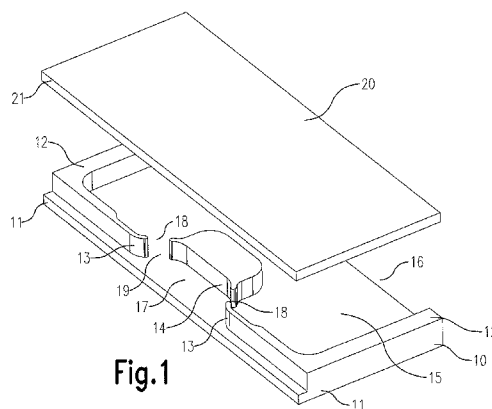


Fig. 1

(57) **Abstract:** An atomizing device, comprising an atomizing body (1) with an inlet (16) for receiving a fluid under increased pressure, and with at least one set of outflow ports (18) for allowing the fluid to escape on a delivery side with forming of a vapour. Imaginary central axes of the outflow ports directed in a flow direction herein enclose a mutual angle (α) in order to intersect each other at an intersection (S). The atomizing body comprises a roof (21) and a bottom (11) which extend over at least a first distance (d1) beyond the set of outflow ports (18) and bound a vaporizing space (17) on either side. The intersection (S) of the imaginary central axes of the outflow ports lies at a second distance (d2) from the set of outflow ports, wherein the second distance (d2) is greater than the first distance (d1) and extends beyond the vaporizing space (17). In a further aspect of the invention the atomizing body is able and adapted to capture supplied radiation, thus forming heat. In a further aspect the atomizing body is in an envelope which at least on a boundary layer is adhered with a boundary layer to the atomizing body.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2008/050438

A. CLASSIFICATION OF SUBJECT MATTER
INV. B05B1/08 B05B1/26 B29C65/14

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)
B05B B60S F15C

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/063076 A1 (GOPALAN SHRIDHAR [US]) 22 March 2007 (2007-03-22) paragraph [0015] paragraph [0030] paragraph [0060] - paragraph [0062] paragraph [0064] - paragraph [0067] claims 1,4,9 figures	1-17
X	WO 98/23382 A (PAR WAY GROUP [US]; CRAMPTON DAVID C [US]; SMITH ROBERT [US]) 4 June 1998 (1998-06-04) page 9, paragraph 1 figures 5,6	9-17
A	----- -/--	4

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>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 30 March 2009	Date of mailing of the international search report 07/04/2009
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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, Fax: (+31-70) 340-3016	Authorized officer Barré, Vincent
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INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2008/050438

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 358 179 A (LUND MARK T [US] ET AL) 25 October 1994 (1994-10-25) figure 7	9
A	WO 2005/014175 A (BOEHRINGER INGELHEIM MICROPART [DE]; SPITZ MICHAEL [DE]; REINECKE HOLG) 17 February 2005 (2005-02-17) cited in the application the whole document	1-12
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X	FR 2 851 483 A (VALOIS SAS [FR]) 27 August 2004 (2004-08-27)	18,19, 21,22, 27-29, 31-36
A	page 4, line 1 - line 28 page 7, line 4 - line 13 figures	20, 23-26, 30,33,34
X	JP 10 146978 A (FUJI XEROX CO LTD) 2 June 1998 (1998-06-02) the whole document	18-20, 22,27, 28,31, 32,34,35
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X	JP 2006 062373 A (BROTHER IND LTD) 9 March 2006 (2006-03-09) abstract; figures 7,9	18,23-25
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/NL2008/050438

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 allsearchable 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-17

Atomizing device directed to the geometry of the outlets and vaporizing space.

2. claims: 18-36

Atomizing device directed to a radiation/ heat sensitive material of the nozzle and directed to the method for assembling such nozzle.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/NL2008/050438

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