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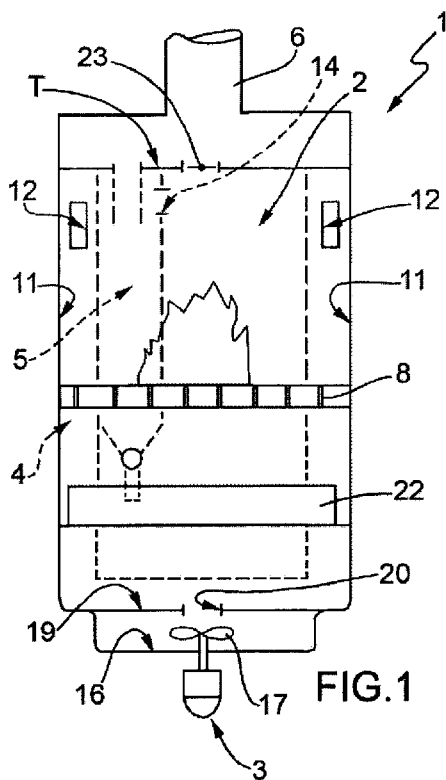
(IT). **DE MARCHI, Denis** [IT/IT]; c/o Gruppo Piazzetta S.p.A., Via Montello, 22, Fraz. Casella D'Asolo, I-31011 Asolo (Treviso) (IT). **DE ZEN, Fabio** [IT/IT]; c/o Gruppo Piazzetta S.p.A., Via Montello, 22, Fraz. Casella D'Asolo, I-31011 Asolo (Treviso) (IT). **PIROLLO, Enrico** [IT/IT]; c/o Gruppo Piazzetta S.p.A., Via Montello, 22, Fraz. Casella D'Asolo, I-31011 Asolo (Treviso) (IT). **PIROLO, Giorgio** [IT/IT]; c/o Gruppo Piazzetta S.p.A., Via Montello, 22, Fraz. Casella D'Asolo, I-31011 Asolo (Treviso) (IT). **REPETTI, Riccardo** [IT/IT]; c/o Gruppo Piazzetta S.p.A., Via Montello, 22, Fraz. Casella D'Asolo, I-31011 Asolo (Treviso) (IT).

(74) Agent: **FELTRINELLI, Secondo, Andrea**; c/o APTA S.r.l., Via Ca' di Cozzi, 41, I-37124 Verona (IT).

(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, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

[Continued on next page]

(54) Title: HEATING APPARATUS



(57) Abstract: Heating apparatus, particularly of the stove, fireplace an similar type, fed with fuels such as wood, pellets and th like, comprising a combustion chamber (2), forced expulsion means (3) of the combustion fumes from said combustion chamber (2), a fume outlet path (4) from said combustion chamber (2) along which said forced expulsion means (3) are arranged, and at least one cyclone separator (5) of th combustion fumes, positioned at the end of said path (4) and communicating with the fumes exhaust (6) through further section of duct (T),

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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, 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.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT,

LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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International application No PCT/IB2011/054800

A. CLASSIFICATION OF SUBJECT MATTER INV. F23B80/04 F23J15/02 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) F23B F23J F24B				
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) 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	DE 90 03 037 U1 (RUHRKOHLE AG) 17 May 1990 (1990-05-17)	1-3,7		
Y	page 2, paragraph 7 page 3, paragraph 2; figures 1,2 -----	4,6,8-11		
Y	DE 20 2008 012237 U1 (BUSS ALEXANDER [DE]; BUSS ANDREAS [DE]; LOCHMUELLER ROBIN [DE]) 2 January 2009 (2009-01-02) paragraphs [0009], [0010]; figure 1 -----	4,9		
Y	FR 1 380 352 A (MEDITERRANEA COMPAGNIA IND COM) 27 November 1964 (1964-11-27) page 1, column 2, paragraph 3 - paragraph 4 figure 1 ----- -/--	6		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "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) "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 </td> <td style="width: 50%; border: none; vertical-align: top;"> "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 </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "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) "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
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "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) "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	Date of mailing of the international search report			
7 May 2012	22/05/2012			
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 Mougey, Maurice			

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2011/054800

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	AT 11 433 U1 (GUNTAMATIC HEIZTECHNIK GMBH [AT]) 15 October 2010 (2010-10-15)	8
A	figure 2 -----	1-3
Y	GB 1 051 774 A (MICHEL BERGER & GASTON LANGUILLAUME) 21 December 1966 (1966-12-21) page 2, line 98 - line 114 page 4, line 58 - line 66 figures 2,3 -----	10
Y	AU 563 481 B2 (PARK T) 9 July 1987 (1987-07-09)	11
A	page 2, line 1 - line 21 page 3, line 1 - line 5 page 3, line 25 - line 30 figures 1,2 -----	1-3,7
A	DE 34 02 787 A1 (WILHELM & SANDER GMBH [DE]) 2 January 1986 (1986-01-02) page 4, line 1 - line 10 page 8, line 10 - line 13 figure 1 -----	1-3
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/IB2011/054800

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 9003037	U1	17-05-1990	NONE

DE 202008012237	U1	02-01-2009	NONE

FR 1380352	A	27-11-1964	NONE

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		EP 2275739 A2	19-01-2011

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		JP 1397033 C	24-08-1987
		JP 57067718 A	24-04-1982
		JP 62001166 B	12-01-1987
		US 4394839 A	26-07-1983

GB 925816	A	08-05-1963	NONE

RAPPORT DE RECHERCHE INTERNATIONALE

Demande internationale n°

PCT/IB2011/054800

A. CLASSEMENT DE L'OBJET DE LA DEMANDE
 INV. F23B80/04 F23J15/02
 ADD.

Selon la classification internationale des brevets (CIB) ou à la fois selon la classification nationale et la CIB

B. DOMAINES SUR LESQUELS LA RECHERCHE A PORTE

Documentation minimale consultée (système de classification suivi des symboles de classement)
 F23B F23J F24B

Documentation consultée autre que la documentation minimale dans la mesure où ces documents relèvent des domaines sur lesquels a porté la recherche

Base de données électronique consultée au cours de la recherche internationale (nom de la base de données, et si cela est réalisable, termes de recherche utilisés)
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C. DOCUMENTS CONSIDERES COMME PERTINENTS

Catégorie*	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
X	DE 90 03 037 U1 (RUHRKOHLE AG) 17 mai 1990 (1990-05-17)	1-3,7
Y	page 2, alinéa 7 page 3, alinéa 2; figures 1,2 -----	4,6,8-11
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Y	FR 1 380 352 A (MEDITERRANEA COMPAGNIA IND COM) 27 novembre 1964 (1964-11-27) page 1, colonne 2, alinéa 3 - alinéa 4 figure 1 -----	6
Y	AT 11 433 U1 (GUNTAMATIC HEIZTECHNIK GMBH [AT]) 15 octobre 2010 (2010-10-15)	8
A	figure 2 -----	1-3
	-/--	



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Date à laquelle la recherche internationale a été effectivement achevée

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Fonctionnaire autorisé

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C(suite). DOCUMENTS CONSIDERES COMME PERTINENTS		
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Y	GB 1 051 774 A (MICHEL BERGER & GASTON LANGUILLAUME) 21 décembre 1966 (1966-12-21) page 2, ligne 98 - ligne 114 page 4, ligne 58 - ligne 66 figures 2,3	10
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A	----- US 4 394 839 A (TOSHIO IKEDA [JP]) 26 juillet 1983 (1983-07-26) colonne 2, ligne 51 - ligne 57; figures 1,6	1-3
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Renseignements relatifs aux membres de familles de brevets

Demande internationale n°

PCT/IB2011/054800

Document brevet cité au rapport de recherche		Date de publication	Membre(s) de la famille de brevet(s)	Date de publication
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DE 202008012237	U1	02-01-2009	AUCUN	

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AT 11433	U1	15-10-2010	AT 11433 U1	15-10-2010
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