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(60) Parent Applications or Grants

(63) Related by Continuation

US	781,262 (CIP)
Filed on	27 September 1985 (27.09.85)
US	825,275 (CIP)
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(81) Designated States: AT (European patent), AU, BE (European patent), CH (European patent), DE (European patent), DK, FI, FR (European patent), GB (European patent), IT (European patent), JP, KR, LU (European patent), NL (European patent), NO, SE (European patent), US, US.

Published*With international search report.**Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

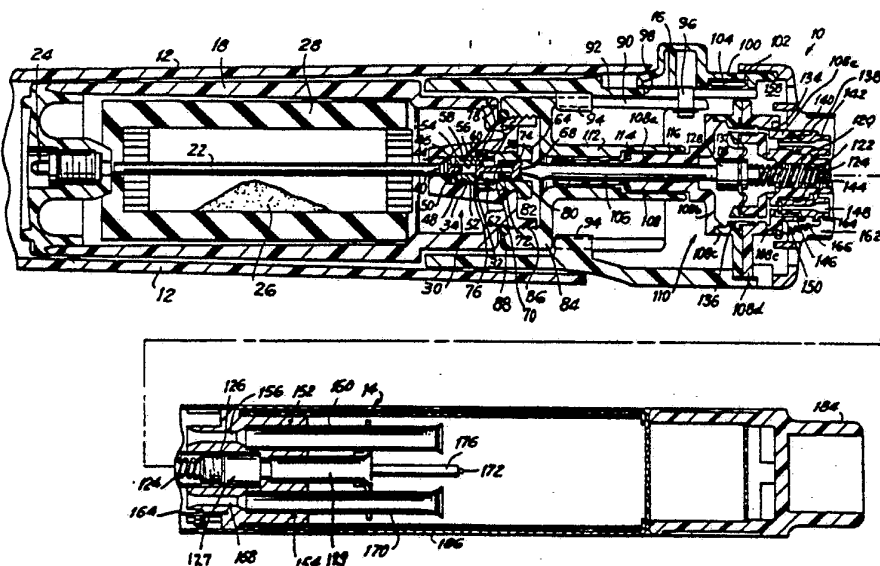
(88) Date of publication of the international search report: 18 June 1987 (18.06.87)

(54) Title: PORTABLE HEATING APPLIANCE

(57) Abstract

A portable heating appliance having a member to be heated, includes burner tubes for heating the member; a fuel supply cartridge for supplying fuel to the burner tubes, the cartridge including a stationary fuel delivery valve for controlling the flow of fuel from the cartridge; and an actuator assembly for actuating the fuel delivery valve in response to user actuation to start the flow of fuel from the cartridge, the actuator assembly including a plunger, a mechanism for moving the plunger to a first position into operative engagement with the fuel delivery valve for opening the fuel delivery valve and a

mechanism for moving the plunger to a second position out of operative engagement with the fuel delivery valve so that the latter terminates the flow of fuel to the burner tubes. The mechanism for moving the plunger to a second position includes a pivotally mounted lever; a spring for biasing the lever in a first direction; a switch for biasing the lever in a second, opposite direction against the force of the spring; a ring secured to the plunger; and a slidably mounted shaft movable by the lever into engagement with the ring to move the plunger to the second position when the switch biases the lever in the second direction. In addition, appliance includes a fail-safe device for shutting off the flow of gas when the temperature of the burner exceeds the normal operating range of temperatures.



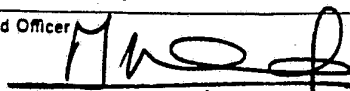
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INTERNATIONAL SEARCH REPORT

International Application No PCT/US 86/02009

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) *		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC ⁴ : F 23 N 1/00; A 45 D 1/02; F 23 N 5/24		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
IPC ⁴	A 45 D; F 23 N; F 16 K; G 05 D	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched *		
III. DOCUMENTS CONSIDERED TO BE RELEVANT¹		
Category *	Citation of Document, ¹¹ with Indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	EP, A, 0093179 (MATSUSHITA ELECTRIC INDUSTRIAL CO. LTD) 9 November 1983, see abstract; figure 2	1,2
A	--	3
A	EP, A, 0030257 (BRAUN AG) 17 June 1981, see abstract; figures 1,2; page 8, lines 10-17	1
A	--	
A	WO, A, 83/01369 (BRAUN AG) 28 April 1983, see abstract	1
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A	EP, A, 0100060 (PRINCE INDUSTRIAL DEVELOPMENT CO.) 8 February, 1984, see abstract; claim 1,4	1,5
Y	--	
Y	EP, A, 0100060 (PRINCE INDUSTRIAL DEVELOPMENT CO.) 8 February 1984, see abstract; figures 1-6	7,19
A	--	16,23,25,27
Y	FR, A, 1314994 (SANTUCCI) 1963, see figures 1,2; page 2, left-hand column, paragraph 6	7,19
	./.	
* Special categories of cited documents: ¹⁰ "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document 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 "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. "Δ" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
28th April 1987	25 MAY 1987	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	M. VAN MOL 	

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
A	--	8,9,11
A	US, A, 4352372 (KOLZE) 5 October 1982, see figure 2	8-11
A	--	
A	DE, A, 2201560 (HABEMA) 19 July 1973, see figures 1-6	15
A	--	
A	US, A, 3999266 (PARKER) 28 December 1976	
A	--	
A	US, A, 2704552 (de VERTEUIL) 22 March 1955	
A	--	
A	US, A, 2867243 (BOWAN) 6 January 1959	
X	--	
X	FR, A, 2206838 (SAUNIER DUVAL) 7 June 1974, see figure; claim 1	29 32
A	--	
X	EP, A, 0040373 (SAMSON) 25 November 1981, see abstract; figures	29-31 32
A	--	
A	Patent Abstracts of Japan, vol. 7, no. 68, (M-201)(1213), 19 March 1983, & JP, A, 57208376 (MATSUSHITA DENKI SANGYO K.K.) 21.12.1982	
A	--	
A	EP, A, 0100060 (PRINCE INDUSTRIAL DEVELOPMENT) 8 February 1984	

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE 1

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

1. ☐ Claim numbers....., because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim numbers....., 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. ☐ Claim numbers....., because they are dependent claims and are not drafted in accordance with the second and third sentences of PCT Rule 6.4(a).

VI. ☒ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING ²

This International Searching Authority found multiple inventions in this International application as follows:

- claims 1-6 : Portable heating appliance with two burners
- claims 7-16 and 19-28: Portable heating appliance with fuel delivery valve actuating and regulating means
- claims 17-18: Portable heating appliance comprising a fuel supply cartridge
- claims 29-32: Portable heating appliance comprising fail-safe means

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.
2. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims: 1-6, 7-16 and 19-28, and 29-32
3. ☐ 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 claim numbers:
4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

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

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON

INTERNATIONAL APPLICATION NO. PCT/US 86/02009 (SA 14854)

This Annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 11/05/87

The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		WO-A- 8301828	26/05/83
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		None	
		None	
		None	
US-A- 4352372	05/10/82	None	
DE-A- 2201560	19/07/73	None	
US-A- 3999266	28/12/76	None	
US-A- 2704552		None	
US-A- 2867243		None	
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For more details about this annex :
see Official Journal of the European Patent Office, No. 12/82

INTERNATIONAL APPLICATION NO.
-----PCT/US 86/02009 (SA 14854)

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CA-A-	1180959	15/01/85
AT-B-	E11816	15/02/85
DE-A,C	3048745	08/07/82

For more details about this annex :
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