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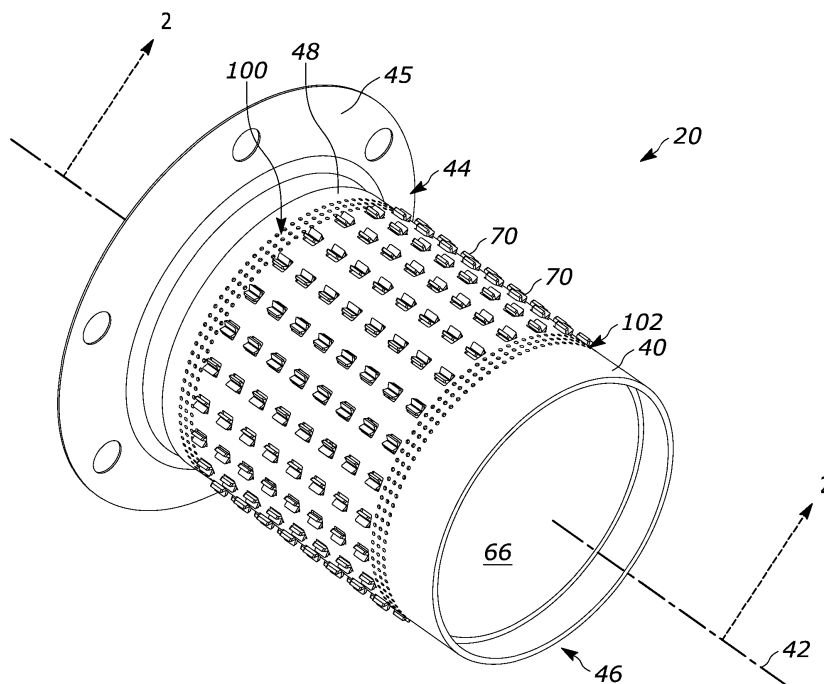
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(60) Divisional application:  
**22150730.4**

(54) **PORTED BURNER**

(57) A fuel burner includes a tube extending along a centerline from a first end to a second end and having an outer surface and an inner surface defining a central passage. The central passage is supplied at the first end with a mixture of air and combustible fuel pre-mixed upstream of the tube. The second end is closed by an end

wall in a fluid-tight manner. The tube has fluid directing structure for directing the pre-mixed mixture radially outward from the central passage to an exterior of the tube such that flames exiting adjacent fluid directing structures extend towards and impinge one another.



**FIG. 1**



**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.  
This report shall be considered, for the purposes of subsequent proceedings, as the European search report

**EP 21 17 8907**

**DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2015/167967 A1 (LE MER JOSEPH [FR]) 18 June 2015 (2015-06-18)	1, 5, 6, 8	INV. F23D14/58
A	* paragraph [0049] - paragraph [0114]; figures 1-5, 9 *	4, 7	
X	WO 2015/196504 A1 (SMITH A O CHINA WATER HEATER [CN]) 30 December 2015 (2015-12-30)	1-3, 5, 6, 8	
A	* page 3, line 16 - page 6, line 1; figures 1-4 *	4, 7	
Y	DE 10 2015 202983 A1 (BOSCH GMBH ROBERT [DE]) 25 August 2016 (2016-08-25)	1, 5, 6, 8	
A	* paragraph [0027] - paragraph [0076]; figures 2-4, 7 *	4, 7	
Y	US 2010/291495 A1 (SCRIBANO GIANFRANCO [IT] ET AL) 18 November 2010 (2010-11-18)	1, 5, 6, 8	
A	* paragraph [0018] - paragraph [0036]; figures 1-3 *	4, 7	
Y	EP 1 840 461 A1 (AEROMATIX LTD [GB]) 3 October 2007 (2007-10-03)	1, 5, 6, 8	TECHNICAL FIELDS SEARCHED (IPC)
A	* paragraph [0014] - paragraph [0031]; figures 1-5 *	4, 7	F23D

**INCOMPLETE SEARCH**

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

**see sheet C**

Place of search

**Munich**

Date of completion of the search

**31 January 2022**

Examiner

**Theis, Gilbert**

**CATEGORY OF CITED DOCUMENTS**

X : particularly relevant if taken alone  
Y : particularly relevant if combined with another document of the same category  
A : technological background  
O : non-written disclosure  
P : intermediate document

T : theory or principle underlying the invention  
E : earlier patent document, but published on, or after the filing date  
D : document cited in the application  
L : document cited for other reasons  
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& : member of the same patent family, corresponding document

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EPO FORM 1503 03:82 (P04E07)



**INCOMPLETE SEARCH  
SHEET C**

Application Number  
**EP 21 17 8907**

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**Claim(s) completely searchable:**  
1-8

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**Claim(s) not searched:**  
9-15

**Reason for the limitation of the search:**

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The search has been restricted to the subject-matter indicated by the applicant in his letter of 28.12.2021 filed in reply to the invitation pursuant to Rule 62a(1) EPC. Hence, the search report has been drawn up on the basis of claims 1 to 8.

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 21 17 8907

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82