



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 022 520 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
23.05.2001 Bulletin 2001/21

(51) Int Cl.7: **F24F 13/02**, E04F 17/04,
F16L 25/00

(43) Date of publication A2:
26.07.2000 Bulletin 2000/30

(21) Application number: **00101337.4**

(22) Date of filing: **24.01.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(71) Applicant: **Librizzi, Giuseppe**
24068 Seriate (BG) (IT)

(72) Inventor: **Librizzi, Giuseppe**
24068 Seriate (BG) (IT)

(30) Priority: **25.01.1999 IT TO990008 U**

(74) Representative: **Dini, Roberto, Dr. Ing.**
Via Castagnole, 59
10060 None (Torino) (IT)

(54) **System for realizing the coupling of duct sections for air conditioning systems**

(57) A system, and an angular element used in it, are described, for the mutual fixing of sections (1,2) of a duct for conveying air, wherein the adjacent ends (3) of two sections (1,2) have projections and/or recesses (14A,14B) which cooperate for defining an engagement seat wherein at least a portion (18,18',19) of a structural joining element (4) has to be inserted. According to the invention, said adjacent ends (3) have a portion (16)

which is apt for realizing the external coverage of the coupling area between said projections and/or recesses (14A,14B) and the portion (18,18',19) of said structural joining element (4) inserted in said seat.

Moreover, said structural joining element (4) is realized for allowing its easy insertion and/or removal in parallel direction with respect to a ceiling and a wall, when the canalization is placed next to a wall and a ceiling.

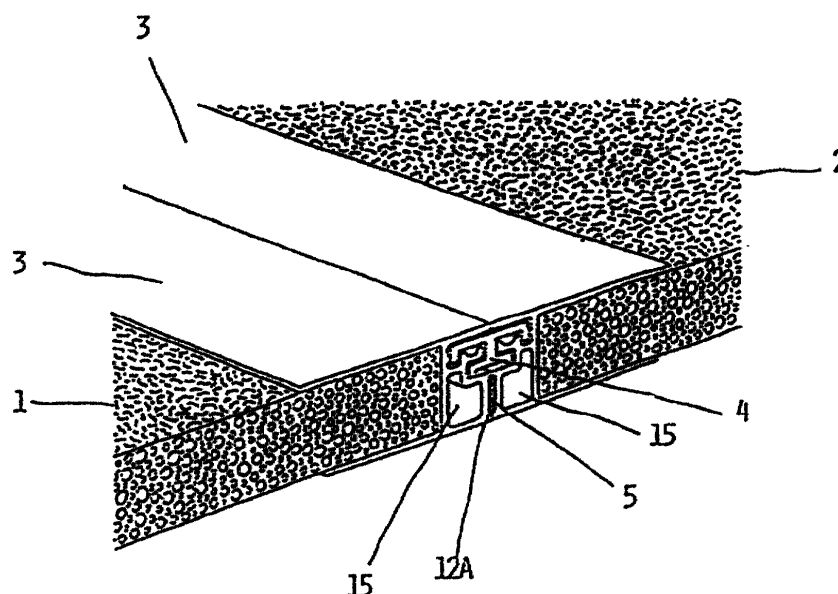


FIG. 1

EP 1 022 520 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 10 1337

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 0 318 994 A (BALF SNC DI GRIGGIO L) 7 June 1989 (1989-06-07)	1,2,9, 12,13, 15-20, 22,24, 26-28,30	F24F13/02 E04F17/04 F16L25/00
Y	* abstract *	3-5,7	
A	* column 1, line 25 - line 44 *	6,8,10, 11,14, 21,23, 25,29	
	* figures 1,2 *		
Y	IT 1 242 490 B (LIBRIZZI GIUSEPPE) 17 March 1994 (1994-03-17) * figures 5,6 *	3-5,7	
A	US 5 007 222 A (RAYMOND HARRY W) 16 April 1991 (1991-04-16) * figure 8 *	6	
A	DE 14 59 902 A (H. BRUNOTTE KG) 21 November 1968 (1968-11-21) * figure 2 *	7	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	EP 0 333 463 A (ARTWRIGHT IND SDN BHD) 20 September 1989 (1989-09-20)		F24F E04F F16L
A	US 3 640 039 A (MCKEE JAMES R ET AL) 8 February 1972 (1972-02-08)		
A	BE 710 746 A (KLIRO-LUFTKANALBAU) 17 June 1968 (1968-06-17)		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 3 April 2001	Examiner De Graaf, J.D.
CATEGORY OF CITED DOCUMENTS		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 & : member of the same patent family, corresponding document	
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			

EPO FORM 1503 03.82 (P04001)

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

EP 00 10 1337

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.

03-04-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0318994 A	07-06-1989	IT 213427 Z	27-11-1989
		AT 68251 T	15-10-1991
		DE 3865419 D	14-11-1991
		ES 2020737 T	01-04-1992
		GR 3003549 T	16-03-1993
IT 1242490 B	17-03-1994	NONE	
US 5007222 A	16-04-1991	US 4862660 A	05-09-1989
		CA 2019852 A,C	23-12-1990
DE 1459902 A	21-11-1968	NONE	
EP 0333463 A	20-09-1989	AU 622641 B	16-04-1992
		AU 3131789 A	21-09-1989
		DE 68907242 T	09-12-1993
US 3640039 A	08-02-1972	NONE	
BE 710746 A	17-06-1968	NONE	

EPO FORM P0459

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