



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 899 525 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
12.01.2000 Bulletin 2000/02

(51) Int. Cl.⁷: **F25D 11/00**, F25D 17/06,
F24F 13/10

(43) Date of publication A2:
03.03.1999 Bulletin 1999/09

(21) Application number: **98306883.4**

(22) Date of filing: **27.08.1998**

(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

(30) Priority: **28.08.1997 KR 9742264**
28.08.1997 KR 9742265

(71) Applicant:
SAMSUNG ELECTRONICS CO., LTD.
Suwon-City, Kyungki-do (KR)

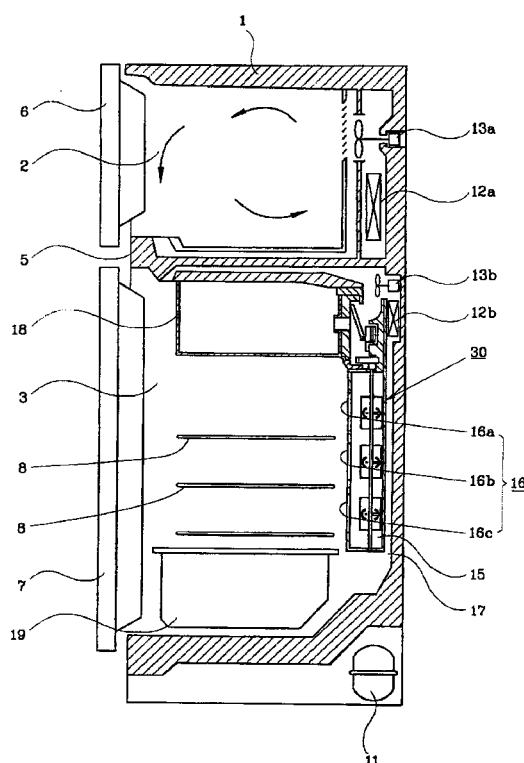
(72) Inventor: **Ji, Joon Dong**
Paldal-ku, Suwon-city, Kyungki-do (KR)

(74) Representative:
Geary, Stuart Lloyd et al
Venner, Shipley & Co.,
20 Little Britain
London EC1A 7DH (GB)

(54) **Refrigerator having a cool air dispersing device**

(57) A refrigerator has a cool air dispersing device (30) capable of dispersing cool air horizontally and vertically. Planar cool air dispersing blades (41a, 41b, 41c) direct cool air through apertures (16) into a cooling chamber (3). Each planar blade (41a, 41b, 41c) has at least one auxiliary blade (51) for dispersing cool air vertically. The auxiliary blades (51) are semi-disc-shaped and can have their angles of inclination manually varied.

FIG. 5



EP 0 899 525 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 30 6883

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.6)
X	WO 95 33167 A (KIM YONG MYOUNG ;PARK SEAK HAENG (KR); SAMSUNG ELECTRONICS CO LTD) 7 December 1995 (1995-12-07)	1-3,6,7,15	F25D11/00 F25D17/06 F24F13/10
A	* page 28, line 23 - page 29, line 11; figure 18 *	12-14	
A	US 3 587 442 A (JAKEWAY GERALD V) 28 June 1971 (1971-06-28) * column 2, line 1 - line 55; figure 1 *	1,2,6	
A	US 2 621 578 A (O. A. LABUS) 16 December 1952 (1952-12-16) * column 2, line 8 - column 4, line 7; figure 9 *	1,4,6	
A	US 4 702 156 A (SANO YOSIAKI) 27 October 1987 (1987-10-27)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			F25D F24F F24D B60H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 November 1999	Examiner Jessen, F
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 & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

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

EP 98 30 6883

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.

18-11-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9533167 A	07-12-1995	AU 689264 B	26-03-1998
		AU 2577695 A	21-12-1995
		CN 1129976 A	28-08-1996
		DE 19519850 A	14-03-1996
		IT RM950366 A	01-12-1995
		SK 124195 A	06-03-1996
		US 5718123 A	17-02-1998
		AU 689263 B	26-03-1998
		AU 688025 B	05-03-1998
		AU 2149195 A	23-10-1995
		AU 670017 B	27-06-1996
		AU 2577595 A	04-01-1996
		AU 2937095 A	16-02-1996
		CN 1143737 A	26-02-1997
		CN 1123569 A	29-05-1996
		CN 1124056 A	05-06-1996
		DE 19512476 A	19-10-1995
		DE 19520179 A	07-12-1995
		DE 19524845 A	25-01-1996
		DE 69508536 D	29-04-1999
		DE 69508536 T	30-09-1999
		EP 0713064 A	22-05-1996
		EP 0715136 A	05-06-1996
		EP 0715137 A	05-06-1996
		EP 0716278 A	12-06-1996
		IT RM950212 A	04-10-1995
		IT RM950367 A	04-12-1995
		IT RM950466 A	19-01-1996
		JP 2851573 B	27-01-1999
		JP 8240369 A	17-09-1996
		JP 2771140 B	02-07-1998
		JP 8247608 A	27-09-1996
		JP 2771141 B	02-07-1998
		JP 8247609 A	27-09-1996
		JP 2686249 B	08-12-1997
		JP 8240373 A	17-09-1996
		JP 2771142 B	02-07-1998
		JP 8247610 A	27-09-1996
		JP 2667060 B	22-10-1997
		JP 8504939 T	28-05-1996
		JP 2840456 B	24-12-1998
		JP 8511088 T	19-11-1996
		WO 9527178 A	12-10-1995
		WO 9533963 A	14-12-1995
		WO 9602800 A	01-02-1996
		SK 120395 A	07-02-1996

EPO FORM P0459

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

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

EP 98 30 6883

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.

18-11-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9533167 A		SK 124295 A	07-02-1996
		US 5822998 A	20-10-1998
		US 5664437 A	09-09-1997
		US 5692383 A	02-12-1997
US 3587442 A	28-06-1971	CA 919487 A	23-01-1973
US 2621578 A	16-12-1952	NONE	
US 4702156 A	27-10-1987	JP 1036772 B	02-08-1989
		JP 1563607 C	12-06-1990
		JP 61121913 A	09-06-1986
		JP 61122448 A	10-06-1986
		JP 1677915 C	13-07-1992
		JP 3041736 B	25-06-1991
		JP 61128059 A	16-06-1986