PCT

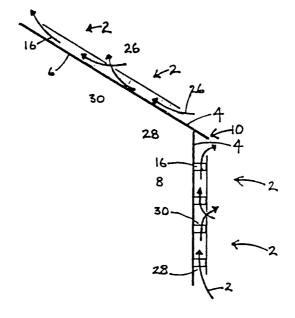
WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : E04D 13/18	A3	(11) International Publication Number: WO 98/59122
2040 13/10		(43) International Publication Date: 30 December 1998 (30.12.98)
(21) International Application Number: PCT/US9 (22) International Filing Date: 25 June 1998 (2)		(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT,
(30) Priority Data: 60/050,769 25 June 1997 (25.06.97) 60/072,894 28 January 1998 (28.01.98) 09/019,427 5 February 1998 (05.02.98) 09/104,027 24 June 1998 (24.06.98) (71) Applicant: POWERLIGHT CORPORATION [US/U San Pablo Avenue, Berkeley, CA 94710 (US). (72) Inventors: DINWOODIE, Thomas, L.; 934 Kingston Piedmont, CA 94611 (US). JACKAWAY, Adam, Scenic Avenue, Berkeley, CA 94708 (US). (74) Agents: HANN, James, F. et al.; Townsend and T and Crew LLP, 8th floor, Two Embarcadero Cer Francisco, CA 94111–3834 (US).	U U (S]; 295 Avenu D.; 157	e, 71

(54) Title: VENTED CAVITY RADIANT BARRIER ASSEMBLY AND METHOD



(57) Abstract

A vented cavity radiant barrier assembly (2) includes a barrier (12), typically a PV module, having inner and outer surfaces (18, 22). A support assembly (14) is secured to the barrier and extends inwardly from the inner surface of the barrier to a building surface (14) creating a vented cavity (24) between the building surface and the barrier inner surface. A low emissivity element (20) is mounted at or between the building surface and the barrier inner surface. At least part of the cavity exit (30) is higher than the cavity entrance (28) to promote cooling air flow through the cavity.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

\mathbf{AL}	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	ТJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
ВJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US98/13352

		L		
A. CLASSIFICATION OF SUBJECT MATTER IPC(6) :E04D 13/18 US CL :Please See Extra Sheet.				
According t	to International Patent Classification (IPC) or to both	national classification and IPC		
	DS SEARCHED	<u> </u>		
	ocumentation searched (classification system followe	ed by classification symbols)		
U.S. :	52/173.3, 506.06, 506.08, 518, 543, 552, 745.13, 745	5.2, 747.1; 136/244, 246		
Documentat	tion searched other than minimum documentation to th	e extent that such documents are included	in the fields searched	
Electronic d	ata base consulted during the international search (n.	ame of data base and, where practicable	, search terms used)	
APS				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.	
A	US 4,677,248 A (LACEY) 30 June 19 7.	87 (30/06/97), see Figures 5-	1-45	
A	US 5,505,788 A (DINWOODIE) 9 Ap 8c.	oril 1996 (09/04/96), see Fig.	1-45	
A,P	US 5,647,915 A (ZUKERMAN) 15 Figure 4.	July 1997 (15/07/97), see	1-45	
A,P	US 5,651,226 A (ARCHIBALD) 29 Abstract.	July 1997 (29/07/97), see	1-45	
A,P	US 5,740,996 A (GENSCHOREK) 2 Figure 1.	1 April 1998 (21/04/98), see	1-45	
A,P	US 5,746,839 A (DINWOODIE) 5 Figures 1A-2C.	May 1998 (05/05/98), see	1-45	
X Furth	er documents are listed in the continuation of Box C	See patent family annex.		
Special categories of cited documents:				
	cument defining the general state of the art which is not considered be of particular relevance	date and not in conflict with the appl the principle or theory underlying the		
"E" ear	lier document published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be consider		
cite	cument which may throw doubts on priority claim(s) or which is ed to establish the publication date of another citation or other	when the document is taken alone "Y" document of particular relevance; the		
"O" doc	scial reason (as specified) cument referring to an oral disclosure, use, exhibition or other ans	considered to involve an inventive combined with one or more other such being obvious to a person skilled in the	step when the document is a documents, such combination	
P doo	cument published prior to the international filing date but later than priority date claimed	"&" document member of the same patent		
Date of the	Date of the actual completion of the international search Date of mailing of the international search report			
04 NOVEMBER 1998 17 DEC 1998				
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Authorized officer CHRISTOPHER T. KENT			Gooding	
•	n, D.C. 20231 o. (703) 305-3230	elephone No. (703) 308-2497		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/13352

C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 5,768,831 A (MELCHIOR) 23 June 1998 (23/06/98), see Figures 1, 5, and 12.	1-45

INTERNATIONAL SEARCH REPORT

International application No. PCT/US98/13352

A. CLASSIFICATION OF SUBJECT MATTER: US CL:							
52/173.3, 506.06, 506.08, 518, 543, 552, 745.13, 745.2, 747.1; 136/244, 246							

Form PCT/ISA/210 (extra sheet)(July 1992)★