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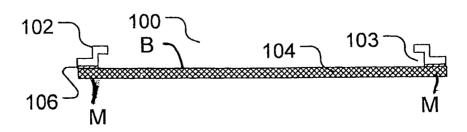
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(54) Title: CEILING TILE ASSEMBLY



(57) Abstract: A ceiling tile assembly includes a sheet of ornamental facing and a support frame or a supporting member with a retaining element.





INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/019095

A. CLASSIFICATION OF SUBJECT MATTER INV. E04B9/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) E04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
(DE 26 19 634 A1 (EPPERLEIN HELMUT DIPL ING) 17 November 1977 (1977-11-17)	1,10	
(page 3, line 1 - page 4, line 7; figures	2–7	
(DE 298 17 995 U1 (AHLSTROM GLASSFIBRE OY [FI]) 28 January 1999 (1999-01-28) the whole document	2-7	
	1,10		
	YIEN-) 21 July 2005 (2005-07-21) page 4, line 11 - line 15; figures	2-7	
	EP 1 396 509 A (ARMSTRONG WORLD IND INC [US]) 10 March 2004 (2004-03-10) paragraph [0018]	2-7	
,	 -/		
X Furth	er documents are listed in the continuation of Box C. X See patent family annex.		
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citation docume"	or other special reason (as specified) or other special reason (as specified) or other special reason (as specified) cannot be considered to involve an in other special reason (as specified) cannot be considered to involve an in occurrent is combined with one or mo	ventive step when the	
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Name and mailing address of the ISA/

Date of the actual completion of the international search

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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Date of mailing of the international search report

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/019095

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C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		<u> </u>	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	DE 28 25 173 A1 (WILHELM BAEDER KG LICHTTECHNIS) 13 December 1979 (1979-12-13) page 6, last paragraph; figure 1		1,10	
A	US 6 499 262 B1 (PINCHOT MARK A [US] ET AL) 31 December 2002 (2002-12-31) column 4, line 4 - line 7; figures		10	
A	EP 1 662 064 A (HUNTER DOUGLAS [US]) 31 May 2006 (2006-05-31) paragraphs [0023], [0024], [0028]		2	
A	WO 2006/083759 A (OWENS CORNING FIBERGLASS CORP [US]; HOWARD MEGHAN L [US]; HILFIKER DAN) 10 August 2006 (2006-08-10) the whole document		1	
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International application No. PCT/US2007/019095

INTERNATIONAL SEARCH REPORT

Box No. II Observations	where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search repo	rt has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.:	
because they relate	to subject matter not required to be searched by this Authority, namely:
•	
2. Claims Nos.:	to parts of the international application that do not comply with the prescribed requirements to such
	aningful international search can be carried out, specifically:
3. Claims Nos.:	
	pendent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
·	
Box No. III Observations	where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Secreting (authority found multiple inventions in this international application, as follows:
This international Searching A	unonty round multiple inventions in this international application, as follows:
see addition	al sheet
As all required additions	onal search fees were timely paid by the applicant, this international search report covers all searchable
Claims.	
As all searchable cla additional fees.	ims could be searched without effort justifying an additional fees, this Authority did not invite payment of
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3. As only some of the	equired additional search fees were timely paid by the applicant, this international search reportcovers
only those claims for	which fees were paid, specifically claims Nos.:
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4 No required additions	al search fees were timely naid by the applicant. Consequently, this international search report is
restricted to the inver	al search fees were timely paid by the applicant. Consequently, this international search report is attom first mentioned in the claims; it is covered by claims Nos.:
1-7, 10	
Remark on Protest	The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
	The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
	No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7, 10

ceiling tile with specific fiberglass veil composition

2. claims: 8-9, 11-16, 21-25

ceiling tile with frame made of specific plastic materials or having limited dimensions

3. claims: 17-20

ceiling tile with discontinuous frame

4. claims: 26-28

ceiling tile with movable retaining element

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/019095

	atent document d in search report		Publication date	Patent family Publication member(s) date
DE	2619634	A 1	17-11-1977	NONE
DE	29817995	U1	28-01-1999	NONE
- WO	2005066429	Α	21-07-2005	US 2005166506 A1 04-08-2005
EP	1396509	Α .	10-03-2004	AU 2003235015 A1 25-03-2004 BR 0304110 A 27-04-2004 CA 2438007 A1 09-03-2004
				JP 2004106546 A 08-04-2004 KR 20040030287 A 09-04-2004 MX PA03008070 A 29-11-2004 NZ 527531 A 24-06-2005 US 2004048531 A1 11-03-2004
DE	2825173	A1	13-12-1979	NONE
US	6499262	B1	31-12-2002	NONE
EP	1662064	Α .	31-05-2006	NONE
WO	2006083759	Α	10-08-2006	CA 2592789 A1 10-08-2006 CN 101111649 A 23-01-2008 EP 1844202 A1 17-10-2007 US 2006179765 A1 17-08-2006