



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**07.12.2016 Bulletin 2016/49**

(51) Int Cl.:  
**E06B 3/964** <sup>(2006.01)</sup>

(43) Date of publication A2:  
**16.01.2013 Bulletin 2013/03**

(21) Application number: **12176208.2**

(22) Date of filing: **12.07.2012**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**

(72) Inventors:  
• **Dyer, Peter**  
**Pontefract, Yorkshire WF9 3AP (GB)**  
• **Beaumont, Mark**  
**Pontefract, WF9 3AP (GB)**

(30) Priority: **13.07.2011 GB 201112021**

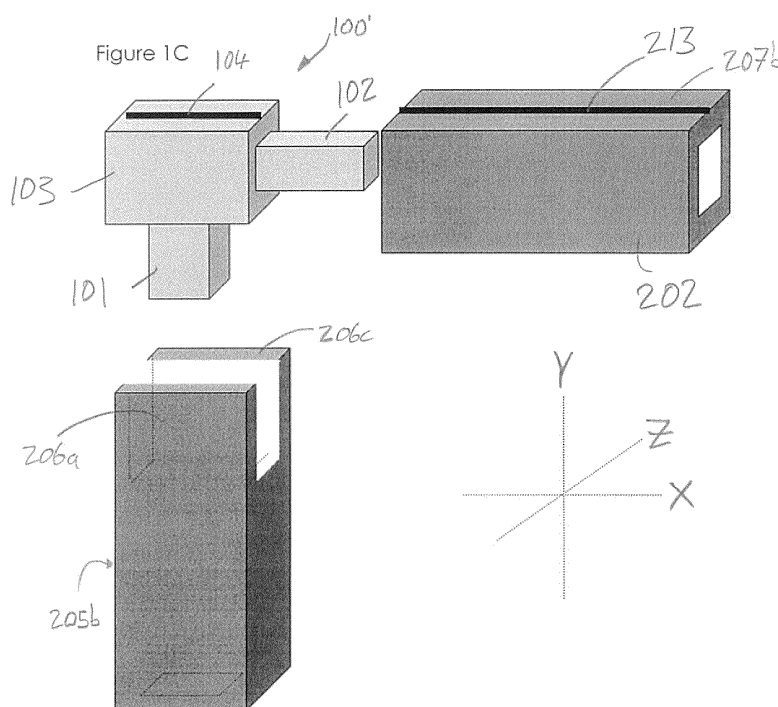
(74) Representative: **Swindell & Pearson Limited**  
**48 Friar Gate**  
**Derby DE1 1GY (GB)**

(71) Applicant: **Dempsey Dyer Ltd**  
**Pontefract, Yorkshire WF9 3AP (GB)**

(54) **Apparatus, system and method for joining sub-frame members**

(57) Embodiments of the invention relate to an apparatus comprising: a first and second sub-frame members for framing a pane, each respectively comprising a first and second plurality of walls defining a first and second hollow cavities therethrough and each having respectively a first and second open end configured to receive therein a first and second protrusion of a means

for joining the sub-frame members together. A least one of the first plurality of walls is a first external wall and at least one of the second plurality of walls is a second external wall. At least a part of the first and second external walls are configured to abut against one another in the form of a butt joint when in a joined condition.





## EUROPEAN SEARCH REPORT

Application Number  
EP 12 17 6208

5

10

15

20

25

30

35

40

45

50

55

1

EPO FORM 1503 03.02 (P04C01)

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 5 375 383 A (LIN TONY Y [US] ET AL) 27 December 1994 (1994-12-27) * figures 3, 3A *	1-15	INV. E06B3/964
X	WO 2010/097776 A1 (GSG INT SPA [IT]; LAMBERTINI MARCO [IT]) 2 September 2010 (2010-09-02) * figure 14 *	1-15	
X	GB 2 140 853 A (VERNON NORMAN) 5 December 1984 (1984-12-05) * figure 1 *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			E06B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 27 October 2016	Examiner Cobusneanu, D
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			

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

EP 12 17 6208

5

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.

27-10-2016

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5375383 A	27-12-1994	AU 6355894 A	13-02-1995
		CA 2166221 A1	26-01-1995
		EP 0708870 A1	01-05-1996
		US 5375383 A	27-12-1994
		WO 9502744 A1	26-01-1995
-----			
WO 2010097776 A1	02-09-2010	CN 102333931 A	25-01-2012
		EP 2315900 A1	04-05-2011
		IT 1392872 B1	02-04-2012
		US 2011308169 A1	22-12-2011
		WO 2010097776 A1	02-09-2010
-----			
GB 2140853 A	05-12-1984	NONE	
-----			