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(72) Inventor; and

(71) Applicant : RAZL, Ivan [CZ/CZ]; Tyrsovo nabr. 760,
76001 Zlin (CZ).

(74) Agent: KRATOCHVIL, Vaclav; Taborska 758/33, 29301
Mlada Boleslav (CZ).

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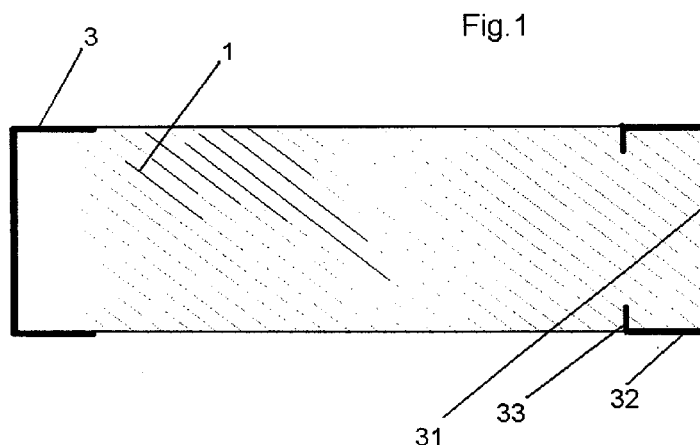
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(54) Title: COMPOSITE STRUCTURAL ELEMENT PARTICULARLY FOR THE CONSTRUCTION OF BUILDINGS



(57) Abstract: The invention relates to a composite structural element, particularly for the construction of buildings, containing a supporting structure and a filling (1). The supporting structure is in the shape of a four-square frame (2), with a filling (1) of a light-weight material with a specific gravity of 0.3 to 1.5g per cu cm, while the edges of the frame (2) are made from interconnected U- and/or C- profiles (3), facing each other with their free ends, made of a metal material with a thickness of 0.5 to 2mm, with a base (31) of 50 to 300mm, rims (32) of 15 to 40mm and the bend (33) at the C-profile of 10 to 30mm.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

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)

E04C

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 practicable, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/284098 A1 (SUMRALL ORBIN F [US]) 29 December 2005 (2005-12-29) paragraphs [0035], [0039], [0040]; figures 1,2,5	1,2
Y	US 2003/183742 A1 (DELOACH W MICHAEL [US]) DELOACH SR W MICHAEL [US]) 2 October 2003 (2003-10-02) paragraph [0014]; figures 2,3	1,2



Further documents are listed in the continuation of Box C.



See patent family annex.

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NL - 2280 HV Rijswijk

Tel. (+31-70) 340-2040,

Fax: (+31-70) 340-3016

Authorized officer

Mysliwetz, Wolfgang

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005284098	A1	29-12-2005	NONE

US 2003183742	A1	02-10-2003	AU 2002353135 A1 13-10-2003
		BR 0215668 A	29-08-2006
		CA 2481278 A1	09-10-2003
		EP 1490557 A1	29-12-2004
		IL 164273 A	15-06-2009
		MX PA04009388 A	25-01-2005
		NZ 535681 A	31-08-2007
		US 2003183742 A1	02-10-2003
		US 2004118066 A1	24-06-2004
		WO 03083230 A1	09-10-2003
