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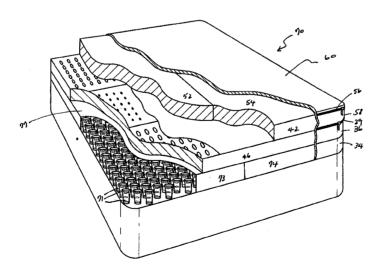
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(54) Title: COMPOSITE MATTRESS ASSEMBLY AND METHOD FOR ADJUSTING THE SAME



(57) Abstract: A composite mattress assembly has multiple layers, where one or more of the layers are foam layers and the rest are spring coil mattress layer(s). The composite mattress assembly may be made exclusively of foam layers as well. Any of the layers can be divided into two halves, which is divided longitudinally to support two people. Each half may independently have a layer which is made from a different material or different density or thickness in the case of a foam layer from that of the other half, according to two differing user preferences. A top casing is provided to encase the top layer, and a core casing is provided to enclose the bottom layers, where the two casings are zipped together along mating peripheral circumferential edge. Additionally, methods to adjust the firmness, temperature and the like of all of the foregoing composite mattress assembly are provided.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/03545

A. CLASSIFICATION OF SUBJECT MATTER IPC: A47C 27/05(2006.01) A47C 27/20(2006.01),27/06(2006.01)				
USPC: 5/740,720,722,727 According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
	cumentation searched (classification system followed by	v classification symbols)	·	
U.S. : 5/740, 720, 722, 727, 738, 691, 903, 730				
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)				
C. DOC	JMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ar	ppropriate, of the relevant passages	Relevant to claim No.	
X	US 5,960,496 A (Boyd) 05 October 1999 (05.10.1999	9).	1-10,13-15,18	
X	US 3,604,025 A (Mims) 14 September 1971 (14.09.1	971)	11,12	
Α	US 6,052,851 A (Kohnle) 25 April 2000 (25.04.2000)		
Α,	US 5,513,402 A (Schwartz) 07 May 1996 (07.05.199	6)		
A	US 6,954,957 B2 (Metzger et al) 18 October 1978 (1	8.10.1978)		
Α	US 3,939,508 A (Hall et al) 24 February 1976 (24.02	.1976)		
Α	US 6,159,574 A (Landvik et al) 12 December 2000 (1	12.12.2000)		
	documents are listed in the continuation of Box C.	See patent family annex.		
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
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