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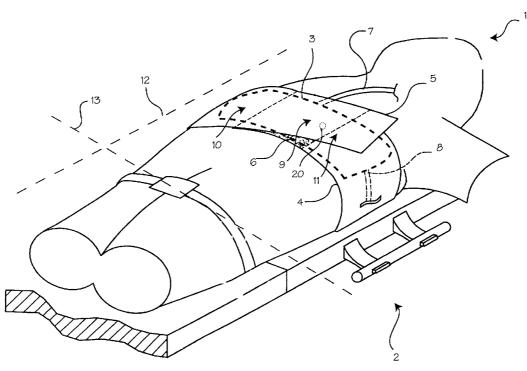
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(54) Title: CPR COMPRESSION DEVICE AND METHOD



(57) Abstract: Improved automatic chest compression systems which use constricting belts (4), repeatedly inflating bladders (3), or reciprocating pistons (82) to compress the chest. A bladder (3) is placed between the chest and the particular mechanism (4, 82) used to compress the chest during CPR. The bladder (3) maximizes the effectiveness of chest compressions.



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Minimum d	ocumentation searched (classification system followed	by classification symbol	(s)		
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C. DOC	CUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages			Relevant to claim No.	
Y	US 2,486,667 A (MEISTER) 01 NOVEMBER 194	9 (01.11.1949) see entire	33,35,36,38-43		
Y	LIS 5 577 009 A (IOUNISON ID ET AL) 26 NOV	TIMEE 1006 (06 11 1006)			
1	US 5,577,998 A (JOHNSON, JR. ET AL) 26 NOVEMBER 1996 (26.11.1996), see entire 33, 35, 36, 38-43 document				
Α	US 5,743,864 A (BALDWIN, II) 28 APRIL 1998 (28.04.1998) see entire document				
	TYG 2 700 200 A (GOOV) 24 A LA P GYY 1070 (24 00 1070)				
Α	US 3,503,388 A (COOK) 31 MARCH 1970, (31.03.1970) see entire document				
A CA 1225,889 A (CHANG) 25 AUGUST 1987 (25.08.1987) see entire document					
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Further	r documents are listed in the continuation of Box C.	See patent fa	amily annex.		
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