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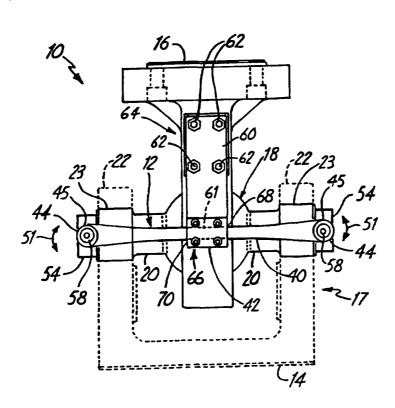
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(72) Inventors: TUSHAR, Thomas, A.; 10816 Little Avenue South, Bloomington, MN 55437 (US). LESKA, Paul, J., For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SPHERICAL SWIVEL WITH ELASTOMERIC POSITIONING DEVICE



(57) Abstract: A spherical swivel (10) includes a base assembly (17) having a clevis (14) and a ball (18) joined to the clevis (14). A swivel eye (16) is movably joined to the ball (18). An elastomeric band positioning device (12) includes an elastomeric band (40) that is secured at opposite ends to the base assembly (17) and is further secured to the swivel eye (16).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/42258

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A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : F16C 11/00,06; G09B 9/14, 19/08, 19/16 US CL : 403/57,79,122,131,132,157, 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) U.S.: 403/57,79,122,131,132,157,					
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. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category *	Citation of document, with indication, where a	ppropriate, of the relev	ant passages	Relevant to claim No.	
A L	JS 526,013 A (Howard) 11 September 1894 (11.0)	9.1894), page 1 lines 4	8-60.	1-8 and 17-20	
	US 4,139,245 A (McCloskey) 13 February 1979 (13.02.1979), Abstract.			1-8 and 17-20	
	US 5,519,913 A (Schedule) 28 May 1996 (28.05.1996), Abstract			1-8 and 17-20	
A U	US 5,752,834 A (Ling) 19 May 1998 (19.05.1998), column 3, lines 46-55.			9-16	
	ocuments are listed in the continuation of Box C.	See patent fa	amily annex.		
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