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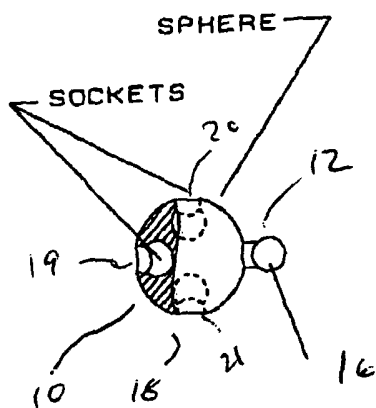
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(54) Title: CONNECTION FOR BEADS WITH LOCKED AND ARTICULATING ENGAGEMENT



(57) Abstract: An assembly of two elements including a first element that has a cavity with an external opening connected to a first region defined by a sidewall that is a spherical segment and the diameter of the external opening is smaller than the diameter of the sidewall in the first region. Adjacent to the first region is a second region also defined by a second spheroid segment that is separated from the first region by an annular ring extending from the sidewalls towards a central axis of the cavity. The annular ring forms a passage having a diameter approximately the same as the external opening. An extension member on the second element is inserted into the cavity which has a first rod section terminating in a second spherically-shaped section. The spherically shaped section has a diameter larger slightly larger than the external opening on the first element and accordingly, the spherical section may be snap-fitted through the external opening to a first position in a first region, and be retained there and, it may be further snap-fitted through the passage to the second region and be retained there. Also disclosed is flange structure that engages an annular seat when the spherically shaped member is in the second position.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC: A63H 33/08(2006.01)
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 USPC: 446/121
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B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 446/121, 85, 118, 120, 122, 124, 127, 128

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

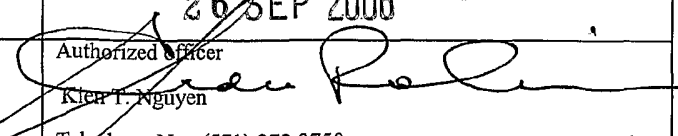
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST, Text search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---	US 2,714,269 A (CHARLES) 02 August 1955 (02.08.1955), see the entire document.	1-5, 8, 13, 14, 18-20
Y		6, 7, 12
X ---	US 3,192,738 A (CHARLES et al.) 06 July 1965 (06.07.1965), see the entire document.	1-5, 8, 13, 14, 18-20
Y		6, 7, 12
Y	US 6,264,522 A (DICKSON) 24 July 2001 (24.07.2001), see the entire document.	6, 7, 12
X	US 3,822,499 A (DE VOS) 09 July 1974 (09.07.1974), see the entire document.	1
X	US 4,406,296 A (WEXLER et al) 27 September 1983 (27.09.1983), see the entire document.	1, 2, 4, 5

Further documents are listed in the continuation of Box C. See patent family annex.

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