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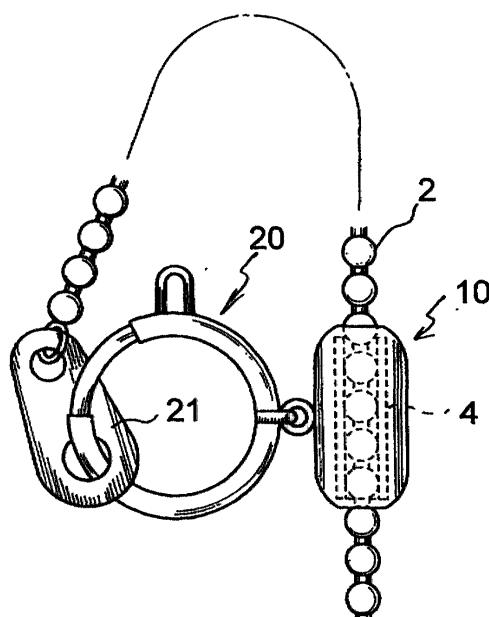
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(54) Structure for adjusting length of ornament chains

(57) The present invention is to provide a structure for adjusting the length of an ornament chain, in which the clamping area for the ornament chain is widened so as to apply a clamping force to the ornament chain without damaging the same. The structure is composed of a hollow casing formed therein with a pair of insertion or come-out openings for inserting the ornament chain, at separated positions, and a resilient member which is accommodated in the casing so as to be prevented from coming off, and which is adapted to be fitted on the ornament chain. The resilient member has a substantially cylindrical shape, defining a longitudinal slit-like cutout so that end part thereof are separated from each other in order to have resiliency, and the bore being set so that an urging force is effected in a direction in which the outer periphery of the ornament chain is fastened when the ornament chains is inserted in the resilient member.

FIG. 3





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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages		
A	FR 1 175 440 A (HOLL) 26 March 1959 (1959-03-26) * claims 1,3; figures 4,6 *	1	A44C5/20 A44C11/00
A	US 4 759 398 A (RENEE WILLIAM C) 26 July 1988 (1988-07-26) * column 3, line 50 - column 4, line 19 * * column 5, line 17 - line 39; figures 2,6 *	1,2	
A	DE 94 03 789 U (WO & WO GRUEN GMBH GRAZ) 19 May 1994 (1994-05-19) * claims 1,3; figure 2 *	1	
A	DE 196 28 783 A (DEUTZMANN HELMUT) 29 January 1998 (1998-01-29) * column 3, line 24 - line 33; claim 1; figure 1 *	1,5	
E	FR 2 780 863 A (CARTIER INT BV) 14 January 2000 (2000-01-14) * page 1, line 5 - line 6 * * page 1, line 16 * * page 3, line 37 - line 38 * * page 5, line 13 - line 19; figures *	1	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> </div> <div style="flex: 1;"> <p>A44C E06B</p> </div> </div>
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	28 August 2001	Monné, E	
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ON EUROPEAN PATENT APPLICATION NO.**

EP 99 12 0458

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28-08-2001

Patent document cited in search report		Publication date	Patent family member(s)			Publication date
FR 1175440	A	26-03-1959	NONE			
US 4759398	A	26-07-1988	AU	4433785 A	10-01-1986	
			EP	0182898 A	04-06-1986	
			WO	8600110 A	03-01-1986	
DE 9403789	U	19-05-1994	NONE			
DE 19628783	A	29-01-1998	NONE			
FR 2780863	A	14-01-2000	NONE			