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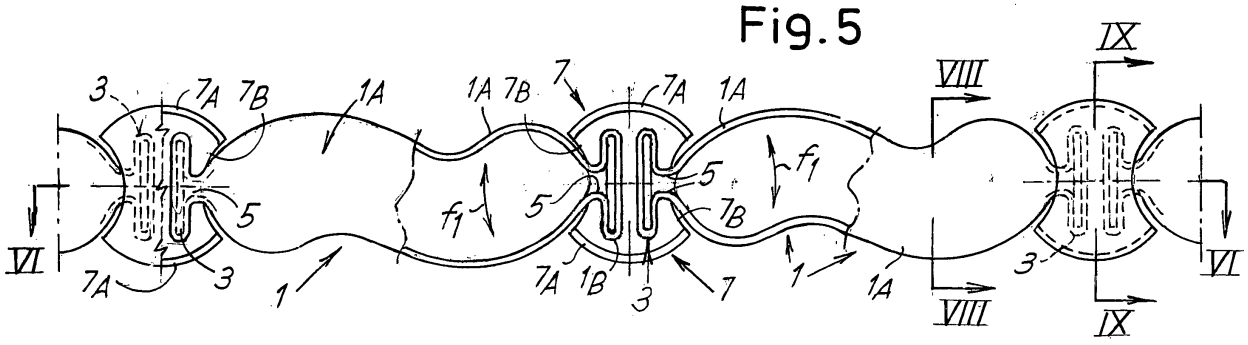
(54) A decorative jewellery chain with coupled flat elements and limited articulation between them

(57) A decorative jewellery chain with coupled flat elements and limited articulation between them. Them main components (1) of the jewellery chain are formed by two coupled elements (1A,1A) and connected by junction cups with a flattened profile (7,7) that are coupled to house the ends heads (1B) protruding from said main components (1). The said end heads (1B) are formed with necks (5) and transverse cross bars (3) at the end of said necks (5), which limit the articulation of said main components (1).

Fig.5



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Description

[0001] Decorative chains are known (for example also from Utility Model No. AR93UO29 filed on II.XI.1993)- which can be produced also and, in particular, with prized metals- to produce chokers, bracelets or other, which include main components of the jewel formed by curved laminar elements that are coupled, and laminar junction cups which can also be coupled to bind contiguous components binding the end heads formed by them. These jewels are restricted to having components with symmetries of revolution according to longitudinal axes, to ensure their uniform arrangement, which they must assume when worn. This inconvenience greatly limits the diffusion of these jewels, though being interesting for the limited costs and relatively showy appearance, though having a rather contained metal weight.

[0002] From Utility Model 239478, filed on 8-VI-1995 a jewel is known whose main segments are composed of many parts, connected by a H shaped element, therefore between two main contiguous components a relative inclination is possible around the two axes defined by the two parallel rods of the H-shaped element. This solution is considerably costly for the operations of assembly of the numerous components and for the necessary refinements, which thwarts the positive aspects glimpsed.

[0003] Traditional solutions resort to a fine metallic wire to insert into transversal coaxial holes of contiguous components, to create an axis of articulation between them; these solutions are costly, slow to accomplish, and require particularly skilled personnel for the assembly phase and for the necessary refinements, while there is the risk of frequent yielding and consequent loss of the jewel worn.

[0004] The present invention avoids these and other problems.

[0005] According to the present invention, the said end heads are developed to construct traverses both housed within the cavity defined by the two cups; in this way the possibility of relative angulations between the two main contiguous components is possible, while rotations between contiguous components around their longitudinal axes are avoided or limited.

[0006] Practically these traverses and junction cups can also be produced to limit angular deviations between main contiguous components in a level containing the traverse axes.

[0007] With these arrangements, the main components can be developed morphologically without restrictions of symmetry of revolution around the longitudinal axis and without restrictions of superficial morphology, which instead are requested in the previous productions.

[0008] The curved laminar elements to couple require mirror symmetry only in the peripheral coupling edges and for the formation of said traverses of articulation.

[0009] The invention will be better understood following the description and the drawing attached, which shows a non-limitative example of the invention itself. In the drawing:

Fig. 1,2 and 3 show three views of the morphology of an element by the formation of the main components of the jewel;

Fig. 4 shows the perspective view of two half- shells for the formation of the laminar junction cups;

Fig. 5 shows, in an external view with removed parts, a jewel formed by the components of Fig. 1 to 4;

Fig. 6 and 7 show a view and partial section according to VI -VI of Fig. 5 and the same components of Fig. 6 in a rectilinear arrangement and in an arched arrangement obtainable according to the invention;

Fig. 8 and 9 show transversal sections according to VIII-VIII and IX-IX of Fig. 5, enlarged;

Fig. 10 is analogous to Fig. 5 but shows the components slightly rotated one with respect to the other in the level of the drawing;

Fig. 11 shows a cutaway of a variant of production, and

Fig. 12 shows in an isolated manner and always a cutaway of the jewel components of Fig. 11.

[0010] In the drawing 1 shows the main components of the jewel. Each of the components 1 consists of two elements 1A which can be mirror symmetrical along the edges and with respect to the coupling level which is the level of the drawing of Fig. 1 and 3, and which can also be equal in certain specific conditions; the only morphological restriction of the two elements which form the main components 1 of the chain is that of having the same coupling profile to be able to be coupled by simple, continuous or spot welding operations according to the techniques that can be used. The two elements 1A which form each component 1 show a transversal shape 1B at the ends, to build, in the coupling between two elements 1A and therefore in the main component 1, a traverse which composes a kind of axis of articulation indicated by 3, which is transversal with respect to the development of a chain jewel formed with the main elements 1, as can be seen particularly in Fig. 5 and 9. Each traverse 3 composed of the terminal appendixes 1B of the elements 1A, is joined to component 1 through a neck 5 which is relatively limited as a transversal section. The appendices 1B made resistant by shape are rigid also with a limited thickness of the starting lamina for the formation of components 1; these appendices 1B could also be flat or almost flat, and coupled to create the traverses 3.

[0011] The various components 1 are coupled between them by two laminar cups 7, each of which has two opposite edges 7A which embrace the neck 5 with the coupling between the two cups 7, and two opposite concave profiles 7B. In the coupling between the two cups 7 a passing cavity is created which gathers the neck 5 of two contiguous components 1 and the two traverses 1B side by side of the two contiguous components 1, which are gathered about parallel between them inside of the cavity formed by the coupling of the two cups 7.

[0012] With this production it is clear that the two contiguous components 1 are susceptible to reciprocal inclinations according to the arrows f of Fig. 6 and 7, in two opposite directions around the clasps which are composed of the two traverses formed by the ends 1B of the elements 1A which form the components 1, as illustrated in Fig. 7. Due to the limited dimension of the traverses composed of the heads 1B, and also due to the shape of the grooves 7B, of cups 7, it is also possible to obtain a limited relative angular inclination between the two components 1 in the level of the design of Fig. 5, as indicated by the arrow f1 of this Fig. 5. In any case the contiguous components 1 remain essentially facing always in the same direction, because they are not susceptible to rotation around the axes, which are longitudinal with respect to each of the components 1. This leads to the possibility of being able to shape the components 1 without any restriction of symmetry of revolution around a longitudinal axis; therefore the components 1 can have any shape also waved and even flattened, and it is also possible to have a different shaping of the external surfaces of the two elements 1A which form each of the components 1. The only restriction is the coincidence of the coupling edges between the two elements 1A, due to their coupling. It is also possible to modify the aesthetic shape of the two elements at will without any restriction beyond that of coupling between the edges of the two elements 1A, which form the components 1. In particular the shaping of the two elements 1A which composes each of the components 1 can be such to create a relatively flat development of each of the components 1 as is seen particularly and exemplified by the sections of Fig. 8 and 9: therefore there is a possibility of developing the jewel above all in conditions in which the jewel worn becomes visible, without the restriction of the essentially circular section which the components of the jewel had in the previous technique. This makes the jewel produced showier according to the technique of this invention.

[0013] The costs of producing jewels according to this invention are much lower than those of previous solutions, as are the quantities of materials required. Furthermore, there is no risk of yielding and possible loss of the jewel.

[0014] Fig. 11 and 12 illustrate a variant of production, in which the components 101 (analogous to those 1) show the articulation axes 103 at the two ends not aligned but rather inclined or parallel between them, but staggered and therefore with the neck 105 of traverses 101B correspondingly inclined. Also the concave profiles 107B of the cups 107 (corresponding to those 7B of cups 7) can be inclined between them. It follows that in the assembly the various contiguous components 101 assume various inclined positions, as those illustrated in Fig. 11 or equivalent. The reciprocal restrictions correspond to those of the solution of Fig. 1 and 1A.

[0015] It is intended that the drawing shows nothing more than an example given only as a practical arrangement of the invention, as it is possible that it may vary in the forms and arrangements without getting away from the scope of the concept of which the invention itself informs. Any presence of the reference numbers in the claims attached has the object of facilitating the reading of the claims with reference to the description and the drawing, and does not limit the scope of the protection represented by the claims.

Claims

1. A decorative chain jewel, which can also be produced in prized metals to create chokers, bracelets or the like, including curved laminar elements (1A, 1A) which are coupled to form the main components (1) of the jewel and laminar junction cups (7, 7) which can also be coupled to bind contiguous components (1) binding the heads of the ends formed by them, **characterized in that** said end heads are developed to construct traverses (3, 3) both housed within the cavity defined by the two coupled cups (7, 7), in this way allowing relative angulations between the two main contiguous components (1) and avoid or limit reciprocal rotations around their longitudinal axes.

2. Jewel as from claim 1, **characterized in that** the traverses (3, 3) and the junction cups (7, 7) are also produced to limit angular deviations between main contiguous components (1) in a level containing the axes of traverses (3, 3) plan of drawing in Fig. 5.

3. Jewel as from claim 1 or 2, **characterized in that** these main components (1, 1) can be developed morphologically without restrictions of symmetry of revolution around their longitudinal axis and without restrictions of transversal morphology.

4. Jewel as from at least one of the claims above, **characterized in that**, to be coupled, these curved laminar elements (1A, 1A) require mirror coincidence only in the peripheral coupling edges and for the formation of these traverses (3, 3).

5. A decorative chain jewel with coupled laminar elements and limited articulation between them; the entirety as described and represented by the drawing attached.

Fig.1

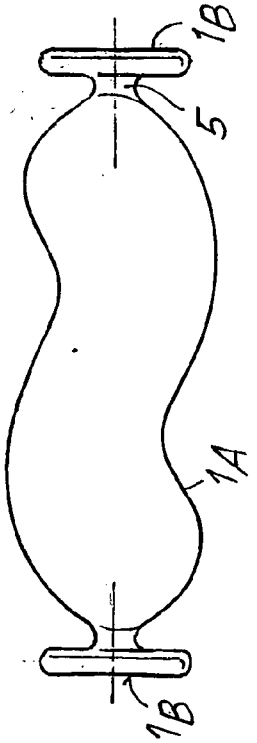


Fig.2

Fig.3

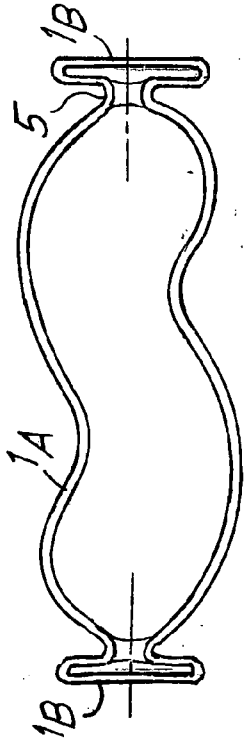


Fig.4

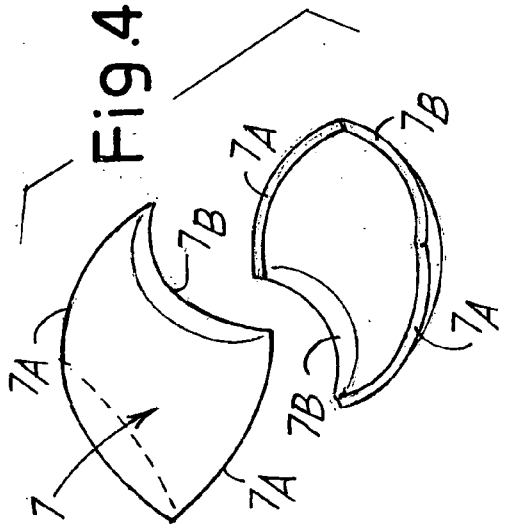


Fig.5

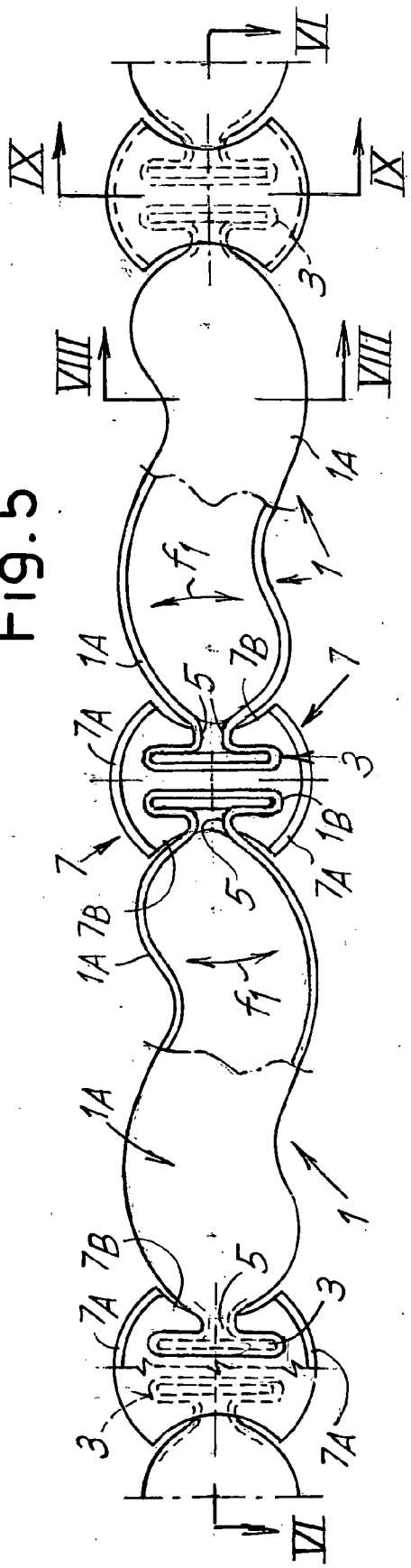


Fig.6

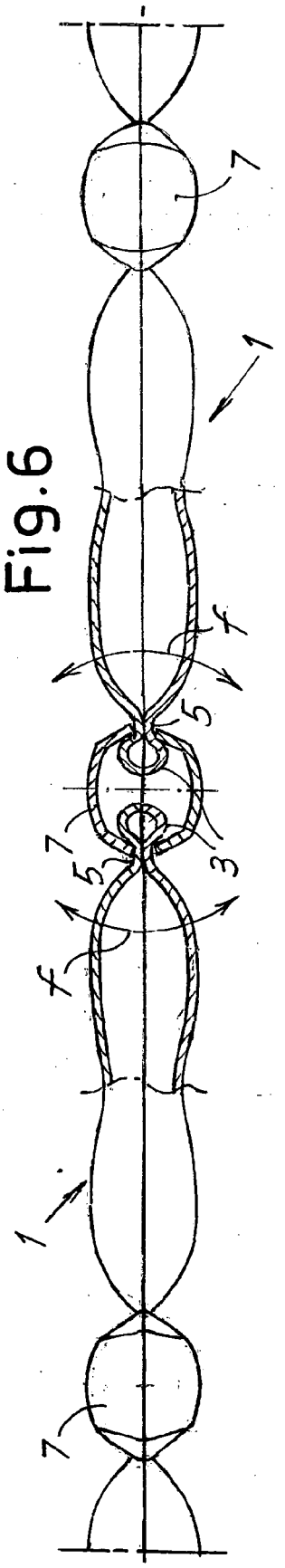


Fig.7

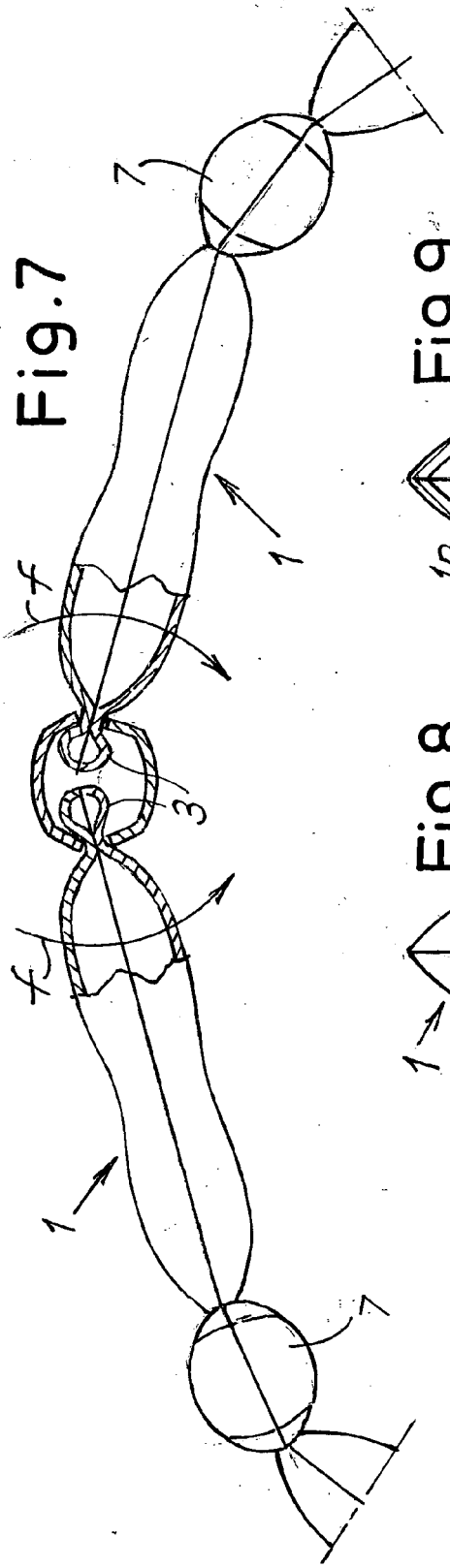


Fig.9

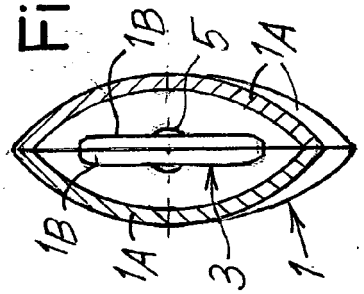
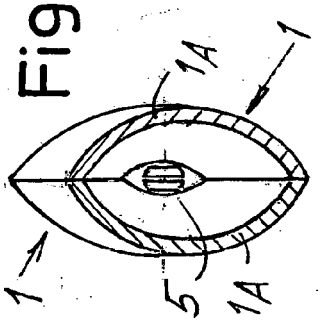


Fig.8



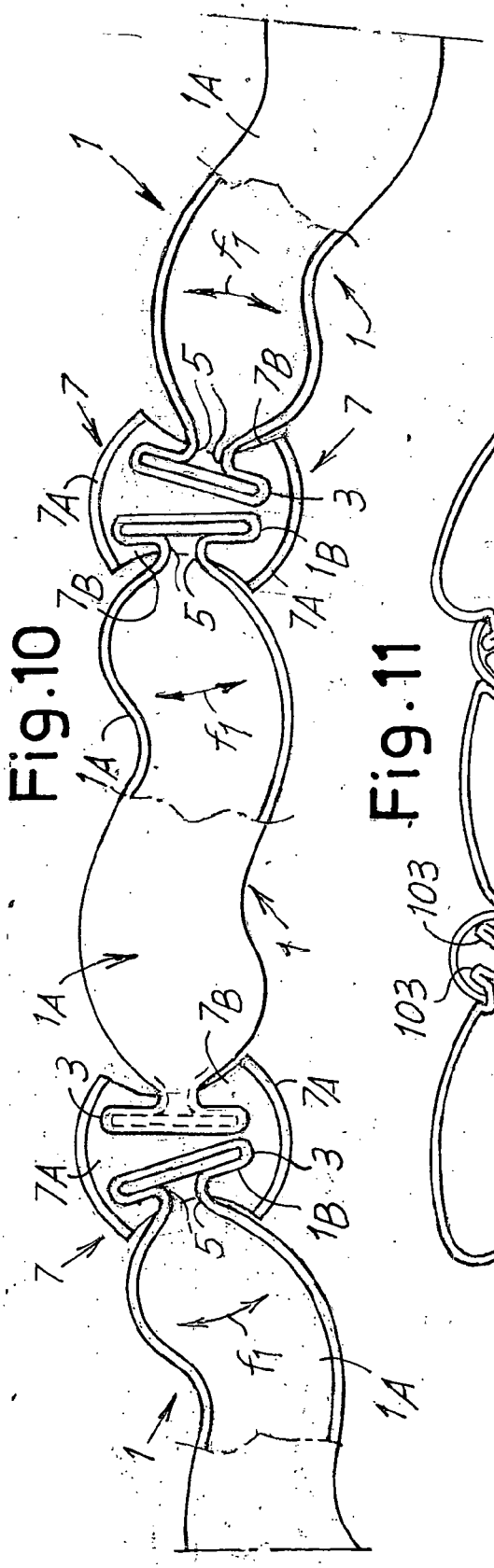


Fig.10

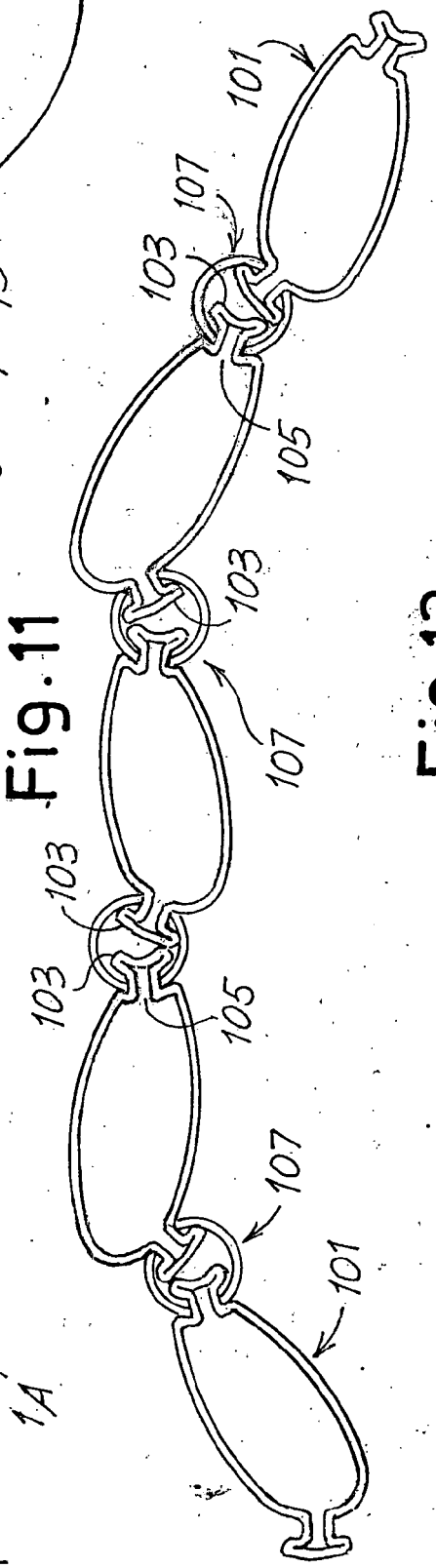


Fig.11

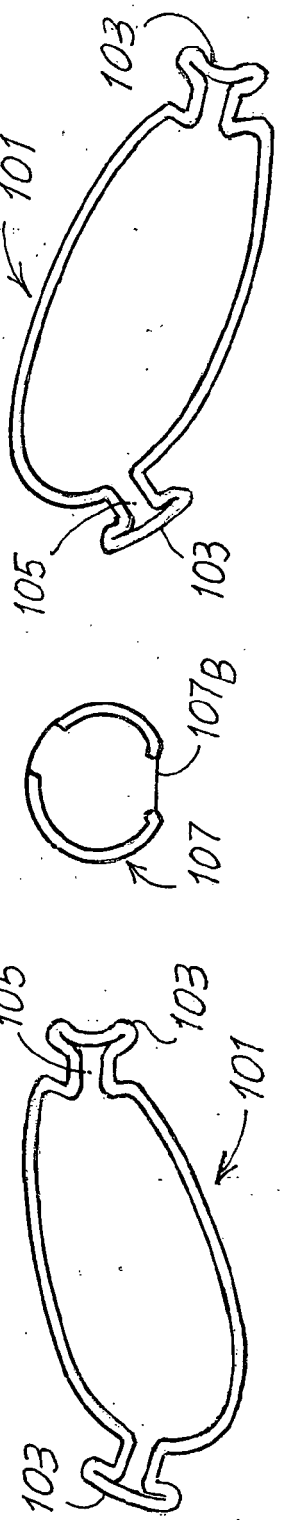


Fig.12

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EUROPEAN SEARCH REPORT

Application Number
EP 06 42 5006

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 2 714 269 A (CHARLES GEOFFREY RUSSELL STAFFORD) 2 August 1955 (1955-08-02) * column 1, line 15 - column 2, line 53; figures 4,5 * * column 3, line 58 - line 71 *	1-5	INV. A44C11/00 A44C13/00
Y	GB 797 704 A (JOHN PRIOR) 9 July 1958 (1958-07-09) * page 1, line 8 - page 2, line 23; figures 6-8 *	1-5	
A	GB 854 666 A (CHELTON LIMITED; GEOFFREY RUSSELL STAFFORD CHARLES; WILLIAM TROUTBECK) 23 November 1960 (1960-11-23) * figures 4,5 *	1-5	
A	DE 297 15 033 U1 (OASE-PUMPEN WUEBKER SOEHNE GMBH & CO. MASCHINENFABRIK, 48477 HOERSTEL,) 14 May 1998 (1998-05-14) * the whole document *	1-5	
			TECHNICAL FIELDS SEARCHED (IPC) A44C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	28 April 2006	Thomson, S

CATEGORY OF CITED DOCUMENTS

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28-04-2006

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82