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### (54) Collapsible structure

(57) The present invention relates to a collapsible structure having a frame. The frame includes at least first, second, third, and fourth segments sequentially and hingedly connected to one another allowing the frame to

collapse and expand. The frame also includes a first hinge mechanism interconnecting the first and second segments, a second hinge mechanism interconnecting the second and third segments, and a third hinge mechanism interconnecting the third and fourth segments.

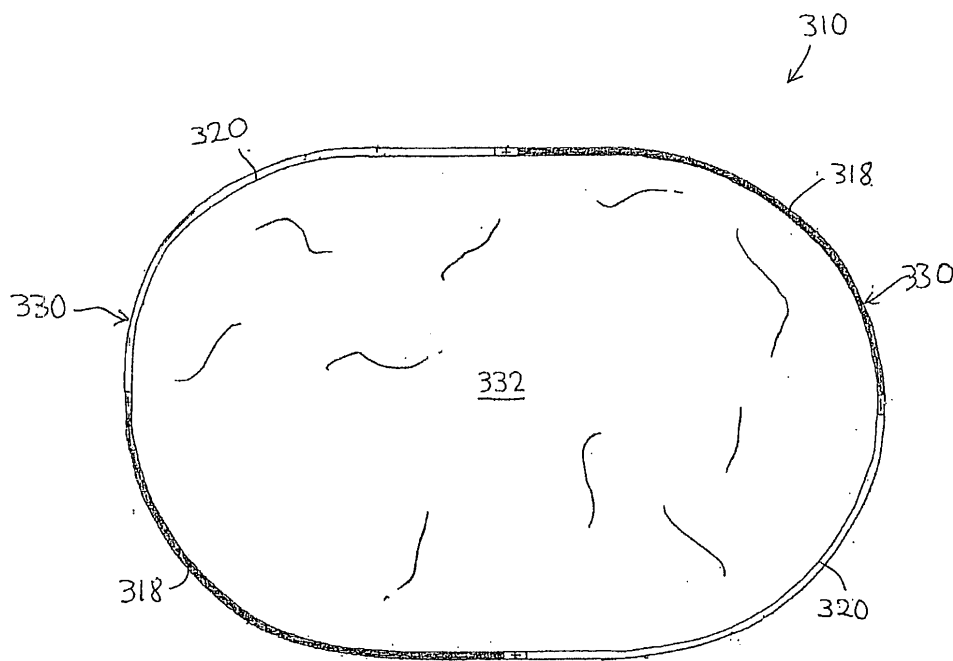


FIG. 1

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# EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |   |   |
|---|---|---|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim                               | CLASSIFICATION OF THE APPLICATION (IPC) |
| A   | US 5 806 549 A (LOVE ET AL)<br>15 September 1998 (1998-09-15)<br>* column 4, line 58 - column 5, line 12;<br>figures 3,4 *  | 1,4,9,10  | INV.<br>E04H15/48                       |
| A   | GB 889 455 A (RALPH BLENKHORNE)<br>14 February 1962 (1962-02-14)<br>* page 2, line 126 - page 3, line 40;<br>figures 9-13 * | 1,4,8-10  |   |
| A   | WO 98/27296 A (SOTO ROJAS, ADOLFO RAFAEL)<br>25 June 1998 (1998-06-25)<br>* figures 9,10 *                                  | 1,4,8-10  |   |
| A   | DE 62 469 C (ERNST PLESS)<br>27 May 1892 (1892-05-27)<br>* the whole document *   | 1,4,9,10  |   |
|   |   |   | TECHNICAL FIELDS SEARCHED (IPC)         |
|   |   |   | E04H                                    |
| The present search report has been drawn up for all claims  |   |   |   |
| Place of search<br>The Hague  |   | Date of completion of the search<br>7 July 2006 | Examiner<br>Kriekoukis, S               |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |   |   |   |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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07-07-2006

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---|---------------------|----------------------------|---------------------|
| US 5806549                                | A | 15-09-1998          | NONE                       |                     |
| -----                                     |   |                     |                            |                     |
| GB 889455                                 | A | 14-02-1962          | NONE                       |                     |
| -----                                     |   |                     |                            |                     |
| WO 9827296                                | A | 25-06-1998          | AU 5345498 A               | 15-07-1998          |
| -----                                     |   |                     |                            |                     |
| DE 62469                                  | C |                     | NONE                       |                     |
| -----                                     |   |                     |                            |                     |

EPO FORM P0459

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