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(54) Title: FOLDABLE STRUCTURES FOR A CONSTRUCTION

(57) Abstract: A structure for a construction, a system and method thereof, the structure configured to move between a folded position and an extended position. The structure comprises a folding structure unit with a first end and a second end, the first end being co-linear with the second end when the structure is in an extended position, a first coupling and folding device between the first end and the second end, an actuating device connected from the first end to the second end, a first rod between the first end and the first coupling and folding device and a second rod between the second end and the first coupling and folding device. The actuating device and the coupling and folding device are configured to move the structure from a folded position to an extended position and from an extended position to a folded position.
**INTERNATIONAL SEARCH REPORT**

International application No. PCT/IB 11/00836

**A. CLASSIFICATION OF SUBJECT MATTER**

<table>
<thead>
<tr>
<th>IPC(8)</th>
<th>USPC</th>
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<tr>
<td>E04H 1/00 (201 1.01)</td>
<td>52/79.1</td>
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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)

IPC(8): E04H 1/00 (2011.01)

USPC: 52/79.1

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

PubWEST(PGPB,USPT,USOC,EPAB,JAPAB); Google Patents, Google.PAIR

Search terms used: folded folding, roof, construction, extended, co-linear, co-linear, actuator, actuating, rod, dome, retractable, retract, linked, articulated, deployed, second rod, fixing, coupling, truss, folding, bridge, fastener, fastening, connector, connection, extendable

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>2-8, 14</td>
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<tr>
<td>Y</td>
<td>US 4,216,633 A (Grauer et al) 12 August 1980 (12.08.1980) Fig 3; col 4, In 19-53</td>
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<td>Y</td>
<td>US 5,355,641 A (Levy) 18 October 1994 (18.10.1994) Figs 1-3, col 5, In 18-28; col 8, In 6-10</td>
<td>2-8</td>
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<tr>
<td>Y</td>
<td>US 3,708,842 A (Leonard) 9 January 1973 (09.01.1973) Fig 3; col 2, In 1-7; col 3, In 36-62</td>
<td>9, 14</td>
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<td>Y</td>
<td>US 5,024,031 A (Hoberman) 18 June 1991 (18.06.1991) Fig 7; col 1, In 27-37; col 4, In 22-37</td>
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<td>US 6,892,409 B1 (Kaup et al.) 17 May 2005 (17.05.2005) Fig 1</td>
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Date of the actual completion of the international search

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