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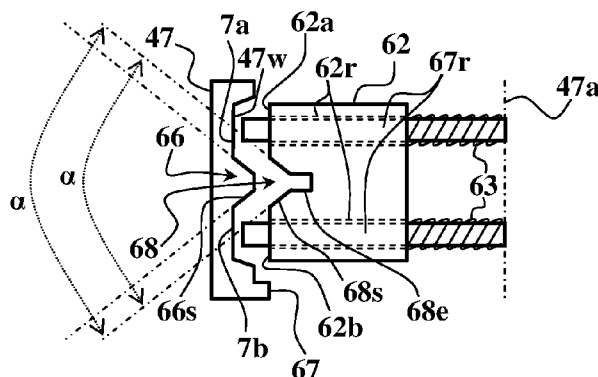


Fig. 8

(57) Abstract: A centrifugal brake mechanism for a controlled descent device, and a drum device employing it, are described. The brake mechanism comprises a circular wheel configured and operable to rotate about an axis of rotation thereof, an axle extending along and rotatable about the axis inside a central cavity of the wheel and having two or more parallel shaft rods extending inside the cavity substantially perpendicular to the axis of rotation, a gear system for transferring rotations of the wheel into counter-rotations of the axle, one or more brake elements each having two or more pass-through bores for slidably mounting over the two or more parallel shaft rods, two or more springs mounted over the parallel shaft rods between the brake element and the axle, and a friction enhancement mechanism for increasing friction forces between the brake elements and the inner wall of the wheel responsive to increase in angular velocity of the wheel.

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INTERNATIONAL SEARCH REPORT

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PCT/IL2015/050998

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A62B 1/10 (2016.01) CPC - A62B 1/10 (2016.02) According to International Patent Classification (IPC) or to both national classification and IPC</p>																							
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8) - A62B 1/10; B65H 59/16; B66D 1/48; F16D 59/00 (2016.01) CPC - A62B 1/10; B65H 59/16; B66D 1/48; F16D 59/00, 59/02 (2016.02)</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC -182/236, 239, 241; 188/65.3; 254/267; 475/331 (keyword delimited)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google Scholar, Google Search terms used: brake, centrifugal, groove, rail, springs, parallel, rods, cable, release, perpendicular, harness, friction enhancement element, gear system</p>																							
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 2004/0065508 A1 (AVOTS et al) 08 April 2004 (08.04.2004) entire document</td> <td>13, 15-17</td> </tr> <tr> <td>Y</td> <td>US 2008/0296011 A1 (HULT) 04 December 2008 (04.12.2008) entire document</td> <td>13, 15-17</td> </tr> <tr> <td>Y</td> <td>US 2014/0021421 A1 (TORBEN et al) 23 January 2014 (23.01.2014) entire document</td> <td>15-17</td> </tr> <tr> <td>A</td> <td>US 2010/0181145 A1 (HOBSON) 22 July 2010 (22.07.2010) entire document</td> <td>1-17</td> </tr> <tr> <td>A</td> <td>US 2013/0248291 A1 (JONES et al) 26 September 2013 (26.09.2013) entire document</td> <td>1-17</td> </tr> <tr> <td>A</td> <td>US 6,966,407 B2 (KARNES et al) 22 November 2005 (22.11.2005) entire document</td> <td>1-17</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 2004/0065508 A1 (AVOTS et al) 08 April 2004 (08.04.2004) entire document	13, 15-17	Y	US 2008/0296011 A1 (HULT) 04 December 2008 (04.12.2008) entire document	13, 15-17	Y	US 2014/0021421 A1 (TORBEN et al) 23 January 2014 (23.01.2014) entire document	15-17	A	US 2010/0181145 A1 (HOBSON) 22 July 2010 (22.07.2010) entire document	1-17	A	US 2013/0248291 A1 (JONES et al) 26 September 2013 (26.09.2013) entire document	1-17	A	US 6,966,407 B2 (KARNES et al) 22 November 2005 (22.11.2005) entire document	1-17
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<p>Date of the actual completion of the international search</p> <p>05 April 2016</p>		<p>Date of mailing of the international search report</p> <p>22 APR 2016</p>																					
<p>Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450 Facsimile No. 571-273-8300</p>		<p>Authorized officer</p> <p>Blaine R. Copenheaver</p> <p>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>																					