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- (71) Applicants and
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(54) Title: STRAP DISPENSER APPARATUS

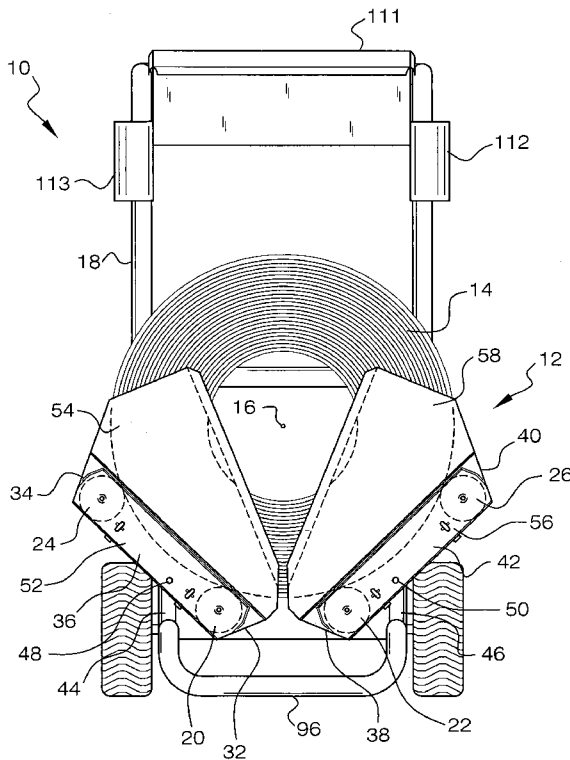


FIG. 1

(57) Abstract: Device for dispensing strapping material from a coil of the strapping material includes a carriage for receiving the coil of material such that the coil can be rotated about a longitudinal axis of the coil by pulling the material from the coil to unwind the material from the coil. The carriage supports the coil at circumferential spaced locations on the periphery of the coil, is adjustable to various widths or thickness of the coil, and operates to apply a proportional braking force to the coil at circumferential spaced locations on the periphery of the coil as a function of the weight of the coil. The carriage is mounted to a wheeled cart that includes various receivers for storing tools and supplies used in the process of bundling articles together with strapping.

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INTERNATIONAL SEARCH REPORT

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC: B65H 59/16 (2006.01) , B62B 1/18 (2006.01) , B65H 49/24 (2006.01) 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: B65H 59/16 (2006.01), B62B 1/18 (2006.01), B65H 49/24 (2006.01), B65H 75/24 (2006.01), B65H 75/30 (2006.01), B65H 75/36 (2006.01) <u>USPC</u>: 242/419, 419.2, 419.4, 419.5, 421, 421.2, 421.3, 422.5, 151, 156.1, 595.1, 129, 557, 156.1</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) Delphion, WEST, Canadian Patents Database Keywords: coil, brake, pivot, roller, force, decrease, proportional, weight, diameter, friction, etc.</p>																									
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;">Category*</th> <th style="width:60%;">Citation of document, with indication, where appropriate, of the relevant passages</th> <th style="width:30%;">Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 1374379A (KLEIN, H. F.) 12 April 1921 (12-04-1921)</td> <td>1-6, 10-12</td> </tr> <tr> <td>Y</td> <td>- The whole document -</td> <td>7-8, 13, 14</td> </tr> <tr> <td>Y</td> <td>US 3685760A (FEDOR, R. M.) 22 August 1972 (22-08-1972) - Figure 2 -</td> <td>7, 8, 13, 14</td> </tr> <tr> <td>X</td> <td>US 6471154B2 (TOTH, Z.) 29 October 2002 (29-10-2002) - The whole document -</td> <td>1-3, 6, 10-12</td> </tr> <tr> <td>A</td> <td>US 6419424B1 (NULL, R. L. et al.) 16 July 2002 (16-07-2002) - Figure 4 -</td> <td>1, 10</td> </tr> <tr> <td>A</td> <td>US 2660381A (FRIEDL, A. J. et al.) 24 November 1953 (24-11-1953) - The whole document -</td> <td>1, 10</td> </tr> <tr> <td>A</td> <td>US 2489432A (PETERS, P. J.) 29 November 1949 (29-11-1949) - Col. 2, line 42, to col. 3, line 5 -</td> <td>1, 10</td> </tr> </tbody> </table>		Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 1374379A (KLEIN, H. F.) 12 April 1921 (12-04-1921)	1-6, 10-12	Y	- The whole document -	7-8, 13, 14	Y	US 3685760A (FEDOR, R. M.) 22 August 1972 (22-08-1972) - Figure 2 -	7, 8, 13, 14	X	US 6471154B2 (TOTH, Z.) 29 October 2002 (29-10-2002) - The whole document -	1-3, 6, 10-12	A	US 6419424B1 (NULL, R. L. et al.) 16 July 2002 (16-07-2002) - Figure 4 -	1, 10	A	US 2660381A (FRIEDL, A. J. et al.) 24 November 1953 (24-11-1953) - The whole document -	1, 10	A	US 2489432A (PETERS, P. J.) 29 November 1949 (29-11-1949) - Col. 2, line 42, to col. 3, line 5 -	1, 10
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td style="width:50%;">* Special categories of cited documents :</td> <td style="width:50%;">"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </tbody> </table>		* Special categories of cited documents :	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means		"P" document published prior to the international filing date but later than the priority date claimed													
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Name and mailing address of the ISA/CA Canadian Intellectual Property Office Place du Portage I, C114 - 1st Floor, Box PCT 50 Victoria Street Gatineau, Quebec K1A 0C9 Facsimile No.: 001-819-953-2476	Authorized officer Jean-François Desrosiers 819- 934-6358																								

INTERNATIONAL SEARCH REPORT
Information on patent family members

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Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US 1374379A	12-04-1921	None	
US 3685760A	22-08-1972	None	
US 6471154B2	29-10-2002	EP 1373112A1 EP 1373112A4 US 2002139890A1 WO 02079062A1	02-01-2004 29-03-2006 03-10-2002 10-10-2002
US 6419424B1	16-07-2002	None	
US 2660381A	24-11-1953	None	
US 2489432A	29-11-1949	None	