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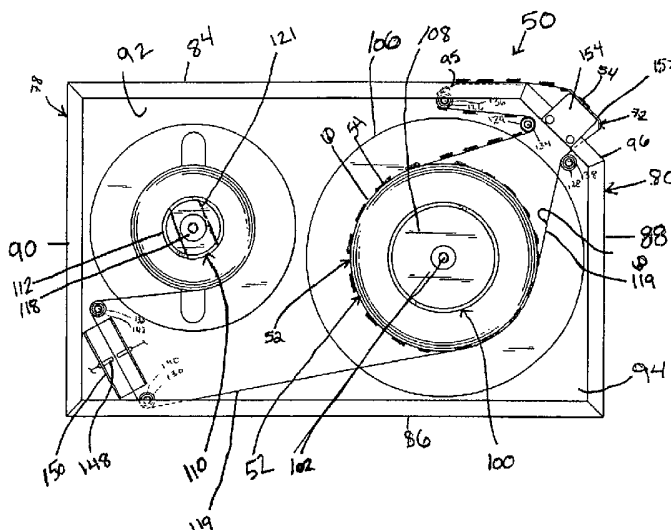
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR ADVANCING THERMOPLASTIC ADHESIVE SEGMENT DISPENSING TAPE AND APPLYING ADHESIVE SEGMENTS THEREBY



(57) Abstract: An automated adhesive segment applicator apparatus (50) is provided for use with an adhesive segment (54) laden carrier release tape (52). The automated adhesive segment applicator (50) has a carrier tape dispensing system including a supply spool (100) upon which a roll of adhesive segment carrier release tape (52) is mounted and a take-up spool (110) configured to provide a carrier tape path whereby the adhesive segment-laden carrier release tape (52) is prevented from becoming loose or pulling away from the adhesive segment applicator apparatus when an adhesive segment (54) is dispensed, in order easily to dispense an adhesive segment (54) to a surface. The automated adhesive segment applicator (50) may be provided with at least one index marking detector for precise advancement of the carrier tape (52) within the applicator (50).

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| <p>A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : B65C 9/08, 9/18; B65H 5/28, 37/02; B32B 35/00 US CL : 156/539, 540, 584; 221/70, 71 According to International Patent Classification (IPC) or to both national classification and IPC</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) U.S. : 156/538, 539, 540, 584, Dig 33; 221/70, 71, 73</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</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 6,439,289 B1 (SCHLOTTHAUER) 27 August 2002 (27.08.2002), abstract, column 3, lines 9-59.</td> <td>1-14</td> </tr> <tr> <td>Y</td> <td>US 5,935,670 A (DOWNS) 10 August 1999 (10.08.1999), column 4, lines 36-67 and column 5, lines 1-33.</td> <td>1-14</td> </tr> <tr> <td>Y</td> <td>US 5,316,613 A (SAMUELSON et al) 31 May 1994 (31.05.1994), column 7, lines 1-52.</td> <td>1-14</td> </tr> <tr> <td>Y</td> <td>US 3,066,881 A (KRUEGER) 04 December 1962 (04.12.62), column 2, lines 41-72, column 3, lines 1-11 and 44-60, and column 4, lines 30-34.</td> <td>1-14</td> </tr> <tr> <td>A</td> <td>US 6,171,439 B1 (GROENEWEG) 09 January 2001 (09.01.2001).</td> <td>1-14</td> </tr> <tr> <td>A</td> <td>US 2,276,297 A (FLOOD) 31 December 1938 (31.12.1938).</td> <td>1-14</td> </tr> <tr> <td>Y</td> <td>US 5,685,944 A (NOSE et al) 11 November 1997, column 10, lines 29-61 and column 11, lines 1-67.</td> <td>1-14</td> </tr> <tr> <td>Y, P</td> <td>GB 2397258 A (VINER et al) 21 July 2004 (21.07.2004), abstract, page 16, lines 12 through page 17, line 31.</td> <td>1-14</td> </tr> </tbody> </table> | | | Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | Y | US 6,439,289 B1 (SCHLOTTHAUER) 27 August 2002 (27.08.2002), abstract, column 3, lines 9-59. | 1-14 | Y | US 5,935,670 A (DOWNS) 10 August 1999 (10.08.1999), column 4, lines 36-67 and column 5, lines 1-33. | 1-14 | Y | US 5,316,613 A (SAMUELSON et al) 31 May 1994 (31.05.1994), column 7, lines 1-52. | 1-14 | Y | US 3,066,881 A (KRUEGER) 04 December 1962 (04.12.62), column 2, lines 41-72, column 3, lines 1-11 and 44-60, and column 4, lines 30-34. | 1-14 | A | US 6,171,439 B1 (GROENEWEG) 09 January 2001 (09.01.2001). | 1-14 | A | US 2,276,297 A (FLOOD) 31 December 1938 (31.12.1938). | 1-14 | Y | US 5,685,944 A (NOSE et al) 11 November 1997, column 10, lines 29-61 and column 11, lines 1-67. | 1-14 | Y, P | GB 2397258 A (VINER et al) 21 July 2004 (21.07.2004), abstract, page 16, lines 12 through page 17, line 31. | 1-14 |
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| <p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230</p> | | <p>Authorized officer Sue A. Purvis <i>[Signature]</i> Telephone No. (571)272-1700 <i>[Signature]</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |