METHODS AND SYSTEMS FOR DESIGNING CIRCULARLY KNITTED GARMENTS

Abstract: A method and system for designing circularly knitted garments are provided. The method includes designing a model (34) of the circularly knitted garment, stretching the model from a first size to a second size, and governing the stretching with one or more user definable rules. The system includes a circular knitting machine with a machine code, a tool (18) for saving a model of the circularly knitted garment as a first output, and a conversion program (16) for converting the first output into the machine code. The tool has a stretching function for changing a size of the first output using one or more user selected rules.
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER
- **IPC(7):** G06F 19/00
- **US CL:** 700/141, 130, 132; 66/8

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)
- **U.S.:** 700/141, 130, 131, 132; 66/8, 30, 55, 171, 178R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched.

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

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<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>X</td>
<td>US 5,557,527 A (KOTAKI et al.) 17 September 1996 (17.09.1996), column 1, lines 6-10; column 3, lines 34-39; column 5, lines 53-58; column 8, lines 51-52; column 14, lines 13; column 14, lines 37-40; column 5, lines 20-22.</td>
<td>1,2,5,6,9,10,11,15,16, 19</td>
</tr>
<tr>
<td>Y</td>
<td>US 4,856,104 A (STOLL et al.) 08 August 1989 (08.08.1989), column 2, lines 17-29; column 3, lines 27-29.</td>
<td>1,3,4,14,16,17,18,20</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,222,379 A (RIKIISHI et al.) 29 June 1993 (29.06.1993), column 21, lines 8-12.</td>
<td>1,3,4,14,16,17,20</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C. See patent family annex.

- **"A"** document defining the general state of the art which is not considered to be of particular relevance.
- **"B"** earlier application or patent published on or after the international filing date.
- **"L"** document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified).
- **"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.
- **"X"** 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.
- **"Y"** 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.
- **"S"** document member of the same patent family.

**Date of the actual completion of the international search:** 09 September 2004 (09.09.2004)

**Date of mailing of the international search report:** 25 OCT 2004

**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

**Authorized officer:**
- **Sharron L. Greene**

**Telephone No.:** (703) 308-0661

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