A system, method, and apparatus for preparing an absorbent core for use in absorbent garments is disclosed. The apparatus includes a funnel having a first end and a second end, the second end being narrower in diameter than the first end, and a nozzle having a straight section, a curved section, and a tip. The straight section of the nozzle is operatively associated with the second end of the funnel. The apparatus further includes a diverter plate operatively associated with the curved section of the nozzle. The invention provides a more uniform distribution of super absorbent particles within the fluff pulp used to make the absorbent core, thus improving performance of the absorbent core. An absorbent garment made using an absorbent core made with the apparatus of the invention also is disclosed. The absorbent garment provides better leakage protection than absorbent garments incorporating conventional absorbent cores.
# INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: A61F 13/15(2006.01); B27N 83/04

USPC: 604/367,370,375,425/82.1,83.1,575; 222/367

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.: 604/367,370,375; 425/82.1,83.1,575; 222/367

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>Y</td>
<td>US 6,194,630 B1 (CHIHANI et al) 27 February 2001 (27.02.2001), column 8, lines 9-23.</td>
<td>7-11, 16-20</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,849,000 A (ANJUR et al) 15 December 1998, column 8, lines 20-64.</td>
<td>7-11, 16-20</td>
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<tr>
<td>A</td>
<td>US 4,140,450 A (PFEIFER et al) 20 February 1979 (20.02.1979), entire document.</td>
<td>1-20</td>
</tr>
<tr>
<td>A</td>
<td>US 2,589,068 A (EVANS) 11 March 1952 (11.03.1952), entire document.</td>
<td>1-20</td>
</tr>
</tbody>
</table>

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

**Date of the actual completion of the international search**

23 June 2006 (23.06.2006)

**Date of mailing of the international search report**

28 NOV 2006

**Name and mailing address of the ISA/US**

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Form PCT/ISA/210 (second sheet) (July 1998)

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**P** document published prior to the international filing date but later than the priority date claimed

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**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

**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

**&** document member of the same patent family