A61B 5/103 (2006.01)

PCT/US2014/028300

14 March 2014 (14.03.2014)

English

English

13/836,724 15 March 2013 (15.03.2013)

ORTHORESEARCH, LLC [US/US]; 1954 First Street, Highland Park, IL 60035 (US).

LIDTKE, Roy, Herman; 3307 290th Street, Elberon, IA 52225 (US).

PINE, Jeffrey, A. et al; Dykema Gossett PLLC, 10 South Wacker Drive, Suite 2300, Chicago, IL 60606 (US).

APPROSS FOR OPTICAL SCANNING OF THE FOOT FOR ORTHOSIS

FIG. 7

Apparatus is provided which provides proper compression of the soft tissue to simulate the joint positions, force applications and proprioceptive feedback of the natural foot in mid-stance gait and captures the topographical surface of the foot for orthosis production. The apparatus provides proper soft tissue compression while allowing an optical scanner to visualize the modified topographical skin surface. The apparatus includes an optically-transparent membrane to deform the soft tissue of the foot and an optical scanner configured to scan the foot through the membrane.
Published:

— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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6 November 2014
A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61 B 5/103 (2014.01)
USPC - 600/592

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC: A61B 5/103 (2014.01)
USPC: 600/592  CPC: A61B 5/1074

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 600/592, 587; 356/601
IPC: A61 B 5/103, 5/107 CPC: A61B 5/1074, 1079, 107, 1036, 1038 (keyword limited; see below)

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>
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<tbody>
<tr>
<td>X</td>
<td>US 2011/0313321 A1 (SANTA FE et al) 22 December 2011 (22.12.2011), entire document, especially Abstract, Fig 1-3, para [0025], [0027], [0035], [0049] and [0050]</td>
<td>1, 12, 14, 15, 17</td>
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<td>Y</td>
<td>US 2009/0076772 A1 (HINSHAW et al) 19 March 2009 (19.03.2009), entire document, especially Abstract, Fig 5, para [0073]-[0076]</td>
<td>2-4, 6-10, 11, 13, 16, 18-20</td>
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<tr>
<td>X</td>
<td>US 6,909,513 B1 (FUIITA et al) 21 June 2005 (21.06.2005), entire document, especially Fig 1, col 3, in 30-33</td>
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<td>Y</td>
<td>US 6,205,230 B1 (SUNDMAN et al) 20 March 2001 (20.03.2001), entire document, especially Fig 1</td>
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<td>Y</td>
<td>US 6,592,699 B1 (MEHTA et al) 15 July 2003 (15.07.2003), entire document, especially col 1, 16-20, col 2, in 25-31, Fig 3, col 5, in 4-10</td>
<td>6-10, 11, 18-20</td>
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<tr>
<td>A</td>
<td>US 2006/0103852 A1 (KLAVENESS) 18 May 2006 (18.05.2006), entire document</td>
<td>1-20</td>
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Further documents are listed in the continuation of Box C.

Date of the actual completion of the international search
08 August 2014 (08.08.2014)

Date of mailing of the international search report
08 SEP 2014

Authorized officer:
Lee W. Young
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PCT OSP: 571-272-7774

P.O. Mail Name
C A
USPC: Electronic IPC: A IPC: B IPC:
Documentation Minimum USPC. A61.
USPC: 600/592.
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<tr>
<td>A</td>
<td>WO 03/087717 A1 (CARE-4-FEET INTERNATIONAL B V) 23 October 2003 (23.10.2003), entire document</td>
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