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(54) Title: OPTICALLY BASED PLANAR SCANNER

(57) Abstract: Apparatus and methods for providing an optically based planar scanner for generating an image are provided. In one embodiment, the apparatus includes a switchable Bragg grating. An area of the switchable Bragg grating is configured to be activated to direct light to a platen. The platen is configured to reflect the light to a waveguide or to refract the light. The light reflected to the waveguide is guided to a light detector. By activating a number of the areas of the switchable Bragg grating and measuring the intensity of the light with a light detector, an image of an object contacting the platen may be formed.

FIG. 2A
**INTERNATIONAL SEARCH REPORT**

**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

<table>
<thead>
<tr>
<th>IPC(8)</th>
<th>G06K 9/74 (2010.01)</th>
</tr>
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<tbody>
<tr>
<td>USPC</td>
<td>356/71</td>
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</table>

According to International Patent Classification (IPC) or to both national classification and IPC, the following classification has been done:

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols):

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<th>IPC(8)</th>
<th>G06K 9/74; G02B 26/10 (2010.01)</th>
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<tbody>
<tr>
<td>USPC</td>
<td>356/71; 359/196.1, 642, 296, 558</td>
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</table>

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

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

USPTO EAST System (US, USPG-PUB, EPO, DERWENT), MicroPatent

**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>
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<tbody>
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<td>Y</td>
<td>US 2006/01 19837 A1 (RAQUIN et al) 08 June 2006 (08.06.2006) entire document</td>
<td>1-35</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:
  - "A" document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the international search

24 October 2010

Date of mailing of the international search report

04 NOV 2010

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