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[Continued on next page]

(54) Title: IMAGE-PROCESSOR-CONTROLLED MISALIGNMENT-REDUCTION FOR OPHTHALMIC SYSTEMS

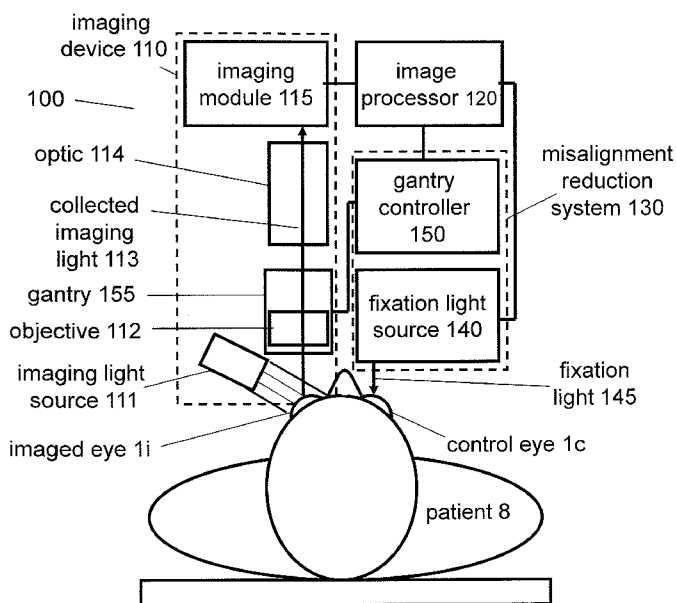


FIG. 14

(57) Abstract: An ophthalmic system (10) is provided that includes an ophthalmic imaging device (110) to generate an image of a portion of an imaged eye (1i) of a patient, an image processor (120) to determine a misalignment of the imaged eye (1i) and the imaging device (110) by processing the generated image, and to generate a control signal according to the determined misalignment, and a misalignment - reduction system (130) to receive the control signal, and to generate a misalignment - reduction response. The misalignment - reduction system (130) can include a fixation light system (140) or a gantry (155,165). In some cases a locator light system (170) may provide additional alignment information for the image processor (120).

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— *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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31 January 2013

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/035927

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B3/13 G02B7/00 A61B3/00
 ADD. A61B3/12 A61B3/10 A61B3/15

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)

A61B G02B A61F

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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| X | US 2007/013867 A1 (ICHIKAWA NAOKI [JP]) 18 January 2007 (2007-01-18) paragraphs [0018] - [0019] paragraph [0037] paragraphs [0046] - [0047] figures 1, 2 | 1,2,31 |
| X | US 2008/055543 A1 (MEYER SCOTT [US] ET AL) 6 March 2008 (2008-03-06) paragraph [0027] paragraph [0052] figure 7 | 1,2,31 |

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

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts 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

"T" 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

"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

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/035927

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | EP 1 444 946 A1 (TOPCON CORP [JP]) 11 August 2004 (2004-08-11) paragraph [0015] paragraphs [0019] - [0021] paragraph [0034] paragraphs [0040], [0042] figures 1,4,10,12 ----- | 1,2,31 |
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| Y | US 2009/161827 A1 (GERTNER MICHAEL [US] ET AL) 25 June 2009 (2009-06-25) paragraphs [0184] - [0190] paragraphs [0449] - [0469] figure 21 ----- | 8 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/035927

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8, 31, 32

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 31, 32

Ophthalmic system having a specifically configured image processor

1.1. claim: 2

Ophthalmic system having a specific electronic sensing system and an electronic display system

2. claim: 9

Ophthalmic system having a certain mode of displaying the eye image

3. claims: 10-27, 29, 30, 33-46

Ophthalmic system having a fixation light source and/or a movable gantry

4. claim: 28

Ophthalmic system having a patient interface

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/035927

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