BINOCULAR SYSTEM WITH DIGITAL CAMERA

The present invention relates to a viewing module (202) being detachably connected to a digital camera module (204) configured to provide a digital image of a scene, said viewing module comprising two oculars (108) in which the digital image provided by the camera module may be viewable, the viewing module being adapted for switching the scene viewable in the oculars between an overview of the scene and a detailed view of the scene, where the detailed view of the scene may be a digital still image of the scene. An advantage with the invention is that it is possible to use an already available camera, such as a users compact camera, and attach the viewing module according to the present invention, thereby making it unnecessary for the user of the camera to purchase an additional combined camera an binocular as provided according to prior art. Instead, the viewing module according to the present invention acts as an accessory to the already available camera module, thus providing additional features to an already available camera module.
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INTERNATIONAL SEARCH REPORT
International application No
PCT/EP2008/061894

A. CLASSIFICATION OF SUBJECT MATTER
INV. G02B23/18 G02B27/02 603B17/48 H04N5/225 H04N5/232

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)
G02B G03B H04N

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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<td>X</td>
<td>US 4 395 731 A (SCHOOLMAN ARNOLD [US])</td>
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<td>26 July 1983 (1983-07-26)</td>
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<td>X</td>
<td>EP 1 744 196 A (VECTRONIX AG [CH])</td>
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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 document 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

"I" 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

Date of the actual completion of the international search
15 December 2008

Date of mailing of the international search report
12/03/2009

Name and mailing address of the ISA/
European Patent Office, P B 5818 Patentlaan 2
NL-2280 HV Rijswijk
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Authorized officer
Hornung, Andre
<table>
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<tr>
<td>Y</td>
<td>US 5 581 399 A (ABE TETSUYA [JP]) 3 December 1996 (1996-12-03) column 2, line 61 - column 3, line 22 column 3, line 48 - line 59 column 4, line 11 - line 17 figure 1</td>
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<td>Y</td>
<td>WO 2005/040891 A (STEREONICS LTD [GB]; CHARLESWORTH CHARLES NICHOLAS [GB]) 6 May 2005 (2005-05-06) page 1, paragraphs 1,2 page 10 - page 11 figure 1</td>
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<td>A</td>
<td>WO 98/26321 A (HEED BOERN [SE]; WITTE STEFAN [SE]) 18 June 1998 (1998-06-18) cited in the application page 2, line 5 - page 3, line 36 figure 1</td>
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</table>
Continuation of Box II.1

Claims Nos.: 11-16

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Continuation of Box II.2

Claims Nos.: 11-16

The technical features of the device of claim 11 are not clearly defined. In addition, claim 11 lacks support in the description. The reasons are as follows:

1. The optical system of claim 11 comprises inter alia the portable viewing module of claim 1 and a portable digital camera module.

The portable viewing module of claim 1 comprises inter alia means of a mechanical or electrical connection to a portable digital camera (see the embodiment corresponding to figures 2 or 3 of the present application and the corresponding description pages).

The optical system of claim 11 comprises, in addition, a first and a second tubular member whose both ends are connected to various components of the optical system (see the embodiment corresponding to figure 4 of the present application and the corresponding description pages).

There is no embodiment in the present application documents which comprises both means for detachably connecting the viewing module to the digital camera and tubular means for connecting parts of the optical system.

Therefore, the optical system of claim 11 is not supported by the description as filed.

2. It is not clear which means are meant to be defined in claim 11 by "further comprising means for capturing a second view of the scene". Since "capturing an image" normally refers to an image sensor, one possible interpretation is that a second camera is defined by this expression. However, it is doubtful whether such an interpretation is supported by the description and the figures of the application documents as filed.

On the other hand, since claim 12 refers to a telescope whose end is connected to the second end of the second tubular member, it could be that these "means for capturing a second view of the scene" mean an optical telescope. However, an optical telescope does not "capture an image" in the normal sense of the wording.
Therefore, it is unclear whether a second camera or an optical telescope is included in present claim 11.

3. The connection in claim 11 of the second tubular member to the optical system is unclear for the following reasons:

- The portable viewing module of claim 1, being included in the optical system of claim 11, comprises only the following concrete technical features: means for detachably connecting, two oculars and switching means.

- The second tubular member is connected with its one end to one of the two oculars of the portable viewing module and is connected with its other end to the portable viewing module. In other words,

- In other words, since the only optical elements of the portable viewing module are the two oculars, both ends of the second tubular member are connected to the one or two of the oculars. This is obviously not achievable.

Therefore, it is unclear to which parts of the optical system the tubular members are actually connected.

4. In conclusion, the lack of clarity, support and/or disclosure of claim 11 is to such an extent, that no search, and hence no examination, was deemed possible concerning claim 11 and claims 12-16 which depend on claim 11.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.
**INTERNATIONAL SEARCH REPORT**

### 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. **X** Claims Nos.: 1-16
   - because they relate to subject matter not required to be searched by this Authority, namely:

2. **X** Claims Nos.: 11-16
   - 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:
     - see FURTHER INFORMATION sheet PCT/ISA/210

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.:
   - 1-4

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicants 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.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1,2

A viewing module having means for detachably connecting to a camera and two oculars adapted to view either an overview or detailed view of the scene provided by the camera. The special technical feature of the viewing module relates to two display screens and to a broadly defined control unit for controlling the camera

1.1. claims: 3,4

Claims 3 and 4 are interpreted as defining a device including a viewing module and a camera. The special technical feature of such a device relates to lenses in the camera for providing different magnifications. The problem addressed by this feature is about how to enable the observer to concentrate on an object of particular interest.

2. claims: 5,6,10

Claims 5 and 6 are interpreted as defining a device including a viewing module and a camera. The special technical feature of such a device relates to communication circuitry and an antenna for wireless communication

3. claims: 7-9

A viewing module having means for detachably connecting to a camera and two oculars adapted to view either an overview or detailed view of the scene provided by the camera. The special technical feature of the viewing module relates to additional lenses providing "additional zoom capabilities" or "a third magnification".

3.
<table>
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