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**Datasheet for the decision
of 7 June 2011**

Case Number: T 0638/07 - 3.5.06

Application Number: 04703551.4

Publication Number: 1590728

IPC: G06F 1/26

Language of the proceedings: EN

Title of invention:

Device and method for adjustment of a work place illumination

Applicant:

AO Medical Products Sweden Aktiebolag

Opponent:

-

Headword:

Adjustment of a work place illumination/AO MEDICAL PRODUCTS

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step - no (main and auxiliary requests)"

Decisions cited:

-

Catchword:

-



Case Number: T 0638/07 - 3.5.06

DECISION
of the Technical Board of Appeal 3.5.06
of 7 June 2011

Appellant: AO Medical Products Sweden Aktiebolag
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 19 October 2006
refusing European patent application
No. 04703551.4 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: D. H. Rees
Members: A. Teale
C. Heath

Summary of Facts and Submissions

I. The appeal is against the decision, dispatched on 19 October 2006, by the examining division to refuse European patent application No. 04 703 551.4 on the basis that the subject-matter of both independent claims lacked novelty, Article 54(1) and (2) EPC 1973, in view of the disclosure of the following document:

D3: DE 42 07 417 A1.

The reasons for the decision also referred, regarding a dependent claim, to the disclosure of the following document:

D2: US 5 083 195 A.

II. A notice of appeal was received on 15 December 2006 in which the appellant requested that the decision be set aside and that a patent be granted. If the board were minded not to set aside the decision, then oral proceedings were requested. The appeal fee was paid on the same date.

III. With a statement of grounds of appeal received on 23 February 2007 the appellant filed amended claims according to an auxiliary request. The appellant also reiterated the request that the decision be set aside and requested that a patent be granted on the basis of the claims according to either the main or the auxiliary request. The main request was apparently for grant of a patent on the basis of the application documents on which the decision had been based.

- IV. In an annex to a summons to oral proceedings the board raised objections under Article 123(2) EPC (added-subject-matter), Article 84 EPC 1973 (clarity) and Article 56 EPC 1973 (inventive step) against the claims according to the main and auxiliary requests.
- V. With a response dated 15 April 2011 the appellant filed amended claims according to a main and an auxiliary request. The appellant withdrew the previous main and auxiliary requests and requested that a patent be granted on the basis of the claims according to one of the new main and auxiliary requests. The appellant also stated that it would not attend the oral proceedings, leaving it to the board to decide on the written submission. The appellant also stated that "Should there still remain any minor defects, it is presumed that adequate corrections can be made in the "Druckexemplar"."
- VI. Oral proceedings were held on 7 June 2011 in the absence of the appellant, as announced in advance. The board noted that the appellant had requested in writing that the decision under appeal be set aside and that a patent be granted based on the Main Request comprising claims 1 - 10, or based on the Auxiliary Request comprising claims 1 - 7, both filed with letter dated 15 April 2011, and a description and drawings as filed.
- VII. At the end of the oral proceedings the board announced its decision.

VIII. Claim 1 according to the main request reads as follows:

"Device for adjustment of a work place illumination (16) in connection with computerized image presentation, characterized in that a detection device (12, 30) is arranged to detect the current light and/or contrast values of at least one active display device (8) which detection device is formed as an external sensor (12) directed towards the presentation surface (P) in order to detect said current light and/or contrast values., [sic] that the detection device (12,30) is connected to a control and adjustment device (14) arranged to automatically adjust the work place illumination (16) of the display device (8) depending on reference values determined in the control and adjustment device (14) in relation to the current light and/or contrast value of the display device (8)."

IX. Claim 1 according to the auxiliary request reads as follows, text added with respect to claim 1 of the main request being indicated in **bold**:

"Device for adjustment of a work place illumination (16) in connection with computerized image presentation **for medical applications with the purpose of making diagnoses based on anatomical images of focused objects**, characterized in that a detection device (12, 30) is arranged to detect the current light and/or contrast values of at least one active display device (8) which detection device is formed as an external sensor (12) directed towards the presentation surface (P) in order to detect said current light and/or contrast values., [sic] that the detection device (12,30) is connected to a control and adjustment device

(14) arranged to automatically adjust the work place illumination (16) of the display device (8) depending on reference values determined in the control and adjustment device (14) in relation to the current light and/or contrast value of the display device (8), **and being provided with fixed and/or movable screens arranged to screen off external light sources."**

Reasons for the decision

1. *The admissibility of the appeal*

In view of the facts set out at points I to III above, the board finds that the appeal is admissible.

2. *The appellant's non-attendance at the oral proceedings*

2.1 As announced in advance, the duly summoned appellant did not attend the oral proceedings and requested that the board reach a decision based on the written submission dated 15 April 2011.

2.2 In accordance with Article 15(3) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), the board relied for its decision only on the appellant's written submissions. The board was in a position to decide at the conclusion of the oral proceedings, since the case was ready for decision (Article 15(5, 6) RPBA), and the voluntary absence of the appellant was not a reason for delaying a decision (Article 15(3) RPBA).

3. *The context of the invention*

The application relates to adapting the illumination of a workplace having computer workstations at which operators inspect medical images such as X-rays to avoid the operators becoming tired and less concentrated due to excessive contrast between the workstation screen and the workplace illumination. As shown in figure 1, this is achieved by measuring the light intensity of a workstation screen using an external detection device mounted so that it is directed towards the screen. The workplace illumination is then varied based on the output signal from the external detection device. The application also mentions the use of fixed or movable screen devices to avoid operators being distracted, for instance by external light sources.

4. *The prior art*

4.1 *Document D3*

4.1.1 It is common ground between the board and the appellant that D3 forms the closest prior art on file. D3 concerns the control of the lighting in a television viewing room and seeks to solve the problem (see column 1, lines 3 to 25) that constant ambient illumination results in small screens failing to convey brightness and draw the viewer in, while turning off the ambient illumination to maximise screen contrast is tiring for the eyes over long periods. In D3 this problem is solved using red, green and blue lamps to light the viewing room, the lamps being controlled based upon corresponding red, green and blue signals

derived from the television; see the figure and column 2, lines 1 to 25. The three colour signals are smoothed, for example using low-pass filters (see claim 4), in a circuit arrangement 1 to yield control signals for controlling corresponding dimmers feeding the red, green and blue lamps in a room illumination unit 2; see figure. In the case of digital colour and brightness signals being produced by the television a computing means is used to smooth these signals; see claim 6. According to claim 1, the three lamps produce a white composite light, while, according to claim 14, the composite colour of the lights can be made the same as that of the television picture.

- 4.1.2 The appellant has questioned the relevance of D3 to the claimed subject-matter on the basis that the claims relate to white light being detected and used to illuminate the workplace, while D3 detects and produces red, green and blue light so that the workplace illumination can change colour with the screen picture. The appellant has also argued that D3 teaches to change both colour and light intensity and that colour change is bad for the operator's eyes. The board is not convinced by these arguments for the following reasons. Firstly, the claims according to the main and auxiliary requests are not limited to the case of white light being detected and produced, and the application does not disclose the workplace illumination being white. Secondly, the claims are not limited to arrangements in which the colour does not change and there is no indication in the application that not changing the workplace illumination colour would be advantageous. Finally if, for the sake of argument, the board accepts that colour change has deleterious effects, it

considers that the skilled person would observe this, and that it would then be an obvious measure to restrict the changes to light intensity only.

4.1.3 The appellant has argued that a further difference exists between the claimed subject-matter and the disclosure of D3 in that the claims relate to the adjustment of workplace illumination whilst D3 concerns a television as an entertainment device in a living room. The board does not accept this argument, since D3 mentions the illumination of a television room ("Fernsehraumbeleuchtung"), in other words any room with a television. Moreover apparatus claim 1 is understood as setting out a device suitable for adjustment of workplace illumination, and the board considers that the device known from D3 is suitable for this purpose.

4.1.4 The appellant has also argued that D3 does not relate to "computerized image presentation", set out *inter alia* in claim 1 of the main and auxiliary requests. The board is not convinced by this argument, as claim 6 of D3 discloses digital colour and brightness signals being smoothed by computing means.

4.2 *Document D2*

D2 concerns a colour display control system which adapts the video signals fed to the display to compensate for the effects of display aging and changes in the ambient lighting so that the colour perceived by the display operator remains the same. This is achieved using external optical sensors arranged adjacent to diagonal corners of the display to detect optical

radiation emitted from the display screen; see column 1, lines 34 to 44, column 2, lines 34 to 44, and figure 1; optical sensors 4 and 5.

5. *Inventive step, Article 56 EPC 1973*

5.1 *The main request*

5.1.1 Claim 1 has been limited to the embodiment in which an external sensor is used to measure the light intensity of the display device; see figure 1 and page 7, lines 2 to 26.

5.1.2 Interpreting the circuit arrangement 1 known from D3 as the claimed "detection device" and room illumination unit 2 as the claimed "control and adjustment device", D3 discloses the following features set out in claim 1:

device for adjustment of a work place illumination in connection with computerized image presentation, characterized in that a detection device (1) is arranged to detect the current light values of at least one active display device, that the detection device (1) is connected to a control and adjustment device (2) arranged to automatically adjust the work place illumination (lamps 22 23 and 24) of the display device depending on reference values determined in the control and adjustment device (1) in relation to the current light value of the display device.

5.1.3 Hence the subject-matter of claim 1 differs from the disclosure of D3 in that the detection device is formed as an external sensor directed towards the presentation

surface in order to detect said current light and/or contrast values.

5.1.4 According to the appealed decision (reasons, 3.6), for the case in claim 1 of current light values being detected by an external sensor these features were known from D2 (column 1, lines 34 to 44, column 2, lines 34 to 44, ref. num. 4,5 and figure 1) and an obvious measure for the skilled person. Hence these features were unable to lend inventive step, Article 56 EPC 1973, to claim 1 in the version valid at that time. Further reasoning as to why it would be obvious to combine the teachings of documents D3 and D2 was not given.

5.1.5 The board comes to the same conclusion regarding present claim 1, since it does consider that the skilled person would have combined these teachings. Starting from D3, the objective technical problem is seen as improving the accuracy with which current light values from the presentation surface can be measured, an obvious technical problem for the skilled person. The skilled person would consequently have looked for documents disclosing solutions to this problem and would have found D2, which teaches the use of external sensors to measure the light radiated by the screen, in order to take account of variations in screen performance, e.g. as a result of ageing. The skilled person starting from D3 would in consequence have realized that in D3 variations in screen performance are not taken into account by the detection device and thus lead to unknown errors in the measured light values. Thus, by applying the teaching of D2 to the disclosure of D3, the skilled person would have arrived

at the subject-matter of claim 1 without an inventive step.

5.1.6 The appellant has argued that D2 does not disclose a detection device formed as an external sensor directed towards the presentation surface in order to detect current light values. The board does not accept this argument in view of sensors 4 and 5 shown in figure 1; see also column 1, lines 34 to 44, and column 2, lines 34 to 44.

5.2 *The auxiliary request*

5.2.1 For the reasons given above at point 4.1.3 regarding the main request and in the absence of further specific arguments on this point regarding the auxiliary request, the board takes the view that the device known from D3 is suitable for the purpose set out in claim 1, this being "adjustment of a work place illumination (16) in connection with computerized image presentation for medical applications with the purpose of making diagnoses based on anatomical images of focused objects". Hence, for the case in claim 1 of current light values being detected, the subject-matter of claim 1 differs from the disclosure of D3 in the following features:

- a. the detection device is formed as an external sensor directed towards the presentation surface in order to detect said current light values, and
- b. the device being provided with fixed and/or movable screens arranged to screen off external light sources.

5.2.2 The appellant has argued that the screens (feature "b") enhance the function of the control and adjustment device in that the complete image presentation can be freed from external disturbing factors which otherwise would influence image light values (see feature "a"), there thus being a synergistic effect between the two difference features set out above. The board notes that screens may indeed improve the detection of screen light values, but takes the view that this improvement is a usual effect of such screening off devices; there is no surprising synergistic effect. Hence the contributions of the two difference features to inventive step must be considered separately.

5.2.3 As set out in connection with the main request at point 5.1.5 above, difference feature "a" is unable to lend inventive step to claim 1.

5.2.4 Turning to difference feature "b", the use of screens to prevent disturbances caused by extraneous light sources in workplaces is acknowledged as prior art in the description (page 3, lines 5 to 8) and would have been considered by the skilled person as a usual matter of design to adapt the device to its surroundings. Hence difference feature "b" cannot lend inventive step to claim 1 either.

5.2.5 The appellant has argued that the skilled person would have regarded such screening as an alternative to adaption of the workplace illumination and would have had no incentive to combine these measures. The board is not convinced by this argument, since screening and adaption of workplace illumination are not equivalent

measures. On the contrary, they have different effects. Screening alone can effectively counter the effects of external light sources, whilst adaption of workplace illumination alone can reduce the eye strain caused by excessive contrast between the screen display and the workplace illumination.

6. *Conclusion on the appellant's requests*

6.1 Since the subject-matter of claim 1 according to both the main and the auxiliary request does not involve an inventive step, Article 56 EPC 1973, neither of these requests is allowable, and the decision cannot be set aside.

6.2 Regarding the appellant's reference to amendments of the "Druckexemplar", the board notes that it was unable to see any simple amendment to the application which might have overcome the above objections.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Wolinski

D.H. Rees