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Datasheet for the decision of 10 January 2025

Case Number: T 1028/22 - 3.4.02

Application Number: 09817878.3

Publication Number: 2345920

IPC: G02B21/02

Language of the proceedings: EN

Title of invention:
MICROSCOPE SYSTEM AND OBSERVATION CONTROL METHOD

Patent Proprietor:
Nikon Corporation

Opponent:
Carl Zeiss Microscopy GmbH

Headword:

Relevant legal provisions:
EPC Art. 123, 83, 54(1), 56

Keyword:

Amendments - allowable (yes)
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:

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Case Number: T 1028/22 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 10 January 2025

Appellant: (Opponent)	Carl Zeiss Microscopy GmbH Carl-Zeiss-Promenade 10 07745 Jena (DE)
Representative:	Breit, Ulrich Geyer, Fehners & Partner mbB Patentanwälte Perhamerstrasse 31 80687 München (DE)
Respondent: (Patent Proprietor)	Nikon Corporation 15-3, Konan 2-chome Minato-ku Tokyo 108-6290 (JP)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 16 February 2022 concerning maintenance of the European Patent No. 2345920 in amended form.**

Composition of the Board:

Chairman	R. Bekkering
Members:	A. Hornung
	G. Decker

Summary of Facts and Submissions

I. The opponent appealed against the interlocutory decision of the opposition division maintaining European patent No. 2345920 in amended form.

The opposition division had found that the patent as amended according to a second auxiliary request then on file and the invention to which it related met the requirements of the EPC.

II. Oral proceedings before the board were held on 10 January 2025.

III. The opponent-appellant requested that the decision of the opposition division be set aside and that the patent be revoked.

The patent proprietor-respondent requested as a main request that the appeal be dismissed, i.e. that the patent be maintained in amended form as found allowable by the opposition division. Alternatively, it requested that the decision under appeal be set aside and the patent be maintained in amended form on the basis of the claims according to auxiliary requests 1 to 23, all requests filed with the letter dated 20 October 2022.

IV. The following documents, which were relied on in the first-instance opposition proceedings, are referred to in the present decision:

E1: DE 102 14 191 A1,
E2: DE 691 12 111 T2.

The opponent's written submissions are designated O1 and O2 as follows:
O1: statement of grounds of appeal dated 27 June 2022,
O2: letter dated 3 May 2024.

The patentee's written submissions are designated P1 and P2 as follows:
P1: reply to the appeal dated 20 October 2022,
P2: letter dated 28 August 2024.

V. Claim 1 according to the patentee's main request reads as follows (the features of claim 1 are preceded by the numbering **1** to **6**, as defined in the appealed decision, point 16.15):

"**1** A microscope system configured to magnify a sample for observation, the microscope system comprising:

2 a zoom section configured to consecutively change a magnification for the sample;

3 a switching section including a plurality of objective lenses of different magnifications and configured to switch the objective lens placed in an observation optical path to intermittently change the magnification for the sample;

4 a total magnification calculating section configured to calculate a total magnification at which the sample is observed based on the magnification provided by the zoom section and the magnification of the objective lens currently placed in the observation optical path;

5 a zoom magnification determining section configured to operate when the switching section switches the objective lens placed in the observation optical path, to determine

the magnification (target magnification) of the zoom section required to keep the total magnification obtained after the switching of the objective lens equal to the total magnification obtained before the switching of the objective lens; and

6 a zoom control section configured to control the zoom section in such a manner that the magnification of the zoom section is set equal to the target magnification determined by the zoom magnification determining section".

Claim 2 according to the patentee's main request reads as follows:

"The microscope system according to Claim 1,
wherein when a combination of the magnification provided by the zoom section and the magnification of the objective lens fails to set the total magnification obtained after the switching of the objective lens equal to the total magnification obtained before the switching of the objective lens, the zoom magnification determining section is configured to determine the target magnification to be the magnification of the zoom section which serves to set the total magnification obtained after the switching of the objective lens closest to the total magnification obtained before the switching of the objective lens".

Claim 3 according to the patentee's main request reads as follows:

"The microscope system according to Claim 1, wherein when the magnification of the zoom section required to maintain the total magnification is equal to or higher than an upper limit value of a zoom range within which the magnification can be varied by the zoom section or is equal to or lower than a lower limit value of the zoom

range, the zoom magnification determining section is configured to determine the upper limit value or lower limit value of the magnification to be the target magnification".

Reasons for the Decision

1. Main request

1.1 Amendments

Claims 1 to 5 do not introduce subject-matter extending beyond the content of the application as originally filed (Article 123(2) EPC).

1.1.1 The term "means" in the claims 1 to 5 as originally filed has been replaced by the term "section" in the claims 1 to 5 of the present main request. The opponent argues that the terms "means" and "section" are not equivalent, that there is no basis in the application as originally filed for such a replacement and that, therefore, this replacement infringes the requirement of Article 123(2) EPC.

(a) In particular, the opponent submits that "means" in the original claims had no specific reference to parts or element groups, whereas "section" in the granted claims referred to a clearly defined subgroup (O2, page 1, last paragraph). The word "section" was more concrete than the word "means" and therefore had a narrower meaning (O1, page 3, second paragraph). Replacing the general term "means" by "section" infringed the requirement of Article 123(2) EPC.

As submitted by the opponent ("Die ausgetauschten Begriffe sind also nicht äquivalent in dem Sinne, dass

sie exakt denselben Bedeutungsgehalt hätten", O1, page 3, first paragraph), the board acknowledges that the terms "means" and "section" do not bear equivalent meanings when considered from a purely linguistic perspective, particularly when evaluated outside the context of the present patent application. However, as explained by the patentee, "in original claim 1 the 'means' were recited as constituent elements of a microscope system: 'A microscope system ... comprising: zoom means ...; switching means ...; total magnification calculating means ...; zoom magnification determining means ...; and zoom control means ....' Plainly, in original claim 1, the various 'means' were also clearly defined subcomponents/ subgroups of the microscopy system" (P2, page 2, third paragraph). This means that, in the context of present claim 1, both the terms "means" and "section" refer to the same vague entity (i.e. subgroup, subset, component, element, unit etc.) of the microscope of claim 1.

(b) Specifically with respect to feature **2** of present claim 1, the opponent argued during the oral proceedings and in the statement of grounds of appeal (O1, page 2, last paragraph) that a "zoom section" was disclosed in the patent application as originally filed only as an "electric zoom section". However, in present claim 1, the zoom section of feature **2** also covered optical zoom sections which could be manipulated manually. Such an intermediate generalisation was unallowable.

The board is not convinced by this argument. Independently of whether the patent application as originally filed disclosed a zoom section being only operated electrically, replacing the feature "zoom

means for consecutively changing a magnification for the sample" of the microscope of claim 1 as originally filed by the feature "zoom section configured to consecutively change a magnification for the sample" does not add any new technical information to the definition of the microscope. In the context of present claim 1, as stated by the opposition division, "both terms [means and section] are vague expressions for a component or module which performs a certain function. Thus the two terms can be regarded as equivalents" (appealed decision, point 16.6). No explicit or literal basis in the patent application as originally filed is required for replacing "means" by "section".

(c) As regards the other contested expressions in features **3** to **5**, i.e. "switching section", "total magnification calculating section" and "zoom magnification determining section", the opponent submitted during the oral proceedings and in the statement of grounds of appeal (O1, paragraph bridging pages 3 and 4) that they were simply not disclosed in the description as originally filed. According to the description of the patent application as originally filed, the "switching section" was actually disclosed as a "revolver 24". The functions of the "total magnification calculating section" and the "zoom magnification determining section" were actually both executed by a single entity, namely a "control box 34" or "control section 34". Therefore, according to the opponent, the replacement of "means" by "section" was not supported by the patent application as originally filed.

The board is not convinced by the opponent's arguments. As already explained in points (a) and (b)

above, the terms "means" and "section" as such are broad terms referring vaguely to the same entity (or subgroup, subset, component, element, unit etc.) of the microscope of claim 1. The substitution of "section" for "means" in the context of the microscope of claim 1 as originally filed does not require a literal basis in the description as originally filed.

1.1.2 The board agrees with the opponent that the various expressions "...sections" in features **2** to **5** of claim 1 of the main request are not literally disclosed in the patent application as originally filed, but only the corresponding expressions "... means". However, the board is unable to see in the context of the present application which additional technical information would have been added to claim 1 of the main request by the mere replacement of the word "means" by the word "section". Indeed, the microscope system of claim 1 as originally filed comprises various components or modules, designated "means" and performing certain functions. The microscope system of claim 1 of the main request comprises the same components or modules, designated "section" and performing exactly the same functions as the components or modules of the microscope as originally claimed. Both words are vague (or "broad", as submitted by the opponent) terms which as such do not define any clear structural or functional characteristics of the microscope. In conclusion, the board is satisfied by the patentee's explanation that the term "means" in claim 1 as originally filed had been replaced by "section" merely for linguistic consistency reasons without adding any technical information to claim 1.

1.1.3 The relevant question to be answered is whether the amendment covers subject-matter that was not originally disclosed. The board is unable to see what subject-matter

would have been added to the application as originally filed. Despite the opponent's extensive references to the original patent application description during the presentation of its arguments, it was unable to demonstrate that the amendments to claim 1 of the main request had resulted in the addition of any new information when compared to claim 1 as originally filed.

1.1.4 The opponent objected to the amendments in claims 2 to 5 on the same grounds as for claim 1. The board is not convinced by these arguments for the same reasons as given for claim 1.

1.2 Sufficiency of disclosure

The invention as defined in claims 1 to 3 is disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 83 EPC).

1.2.1 The opponent argued that as claim 2 was dependent on claim 1, claim 2 had to comprise all the features of claim 1. However, in claim 2, a situation was considered in which the combination of the zoom section and the objective lens failed to set the total magnification of the microscope after switching of the lens equal to the total magnification before switching. The microscope of claim 2 was configured such that the total magnification obtained after switching of the objective lens was not equal to (as required in claim 1), but closest to, the total magnification obtained before the switching of the lens. According to the opponent, this led to an irresolvable contradiction between claims 1 and 2. Similarly, in claim 3, the total magnification after switching of the lens was also not maintained equal to the total magnification before switching of the lens, leading to the same irresolvable contradiction with claim 1 as in

claim 2. Therefore, the skilled person could not carry out the invention as defined in claims 2 and 3.

1.2.2 The board cannot agree with the opponent's objection. As explained by the opposition division, "the skilled person would readily understand that claims 2 and 3 apply conditionally for [the] situation" where "the total magnification before the switching of the objective cannot be reached with new settings" (appealed decision, point 16.12). As put forward by the patentee in writing (P1, point 5; P2, point 2) and orally in the oral proceedings, claim 1 merely defines a zoom magnification determining section and a zoom control section *configured to* keep the total magnification after switching of the lens equal to the total magnification before switching of the lens. This definition using the expression "configured to" is a functional definition of the microscope sections. However, whether this configuration of the sections effectively results in the equality of the total magnification depends on the circumstances. As submitted by the patentee, "that such a result of equality is always obtained under whatever circumstances is not specified in the claim" (P1, page 5, last paragraph). "[C]laims 2 and 3 deal with exceptions where the configuration defined in claim 1 is for reasons of physical limitations of the apparatus unable to realise" the equality of the total magnification before and after switching of the lens (P1, page 7, fifth paragraph). In conclusion, the microscope of claims 2 and 3 comprises all the features of the microscope of claim 1 and, in addition, comprises features enabling the microscope to deal with certain exceptional circumstances in which the result of equality defined in claim 1 cannot be realised. There is therefore no irresolvable contradiction between claim 1 on the one hand and claims 2 or 3 on the other hand.

1.3 Novelty in view of E1

The subject-matter of claim 1 is novel over E1 (Article 54(1) EPC).

1.3.1 The board concurs with the patentee and the opposition division that E1 does not disclose feature **5**, namely a zoom magnification determining section configured to determine a zoom magnification that keeps the total magnification after the switching of the objective lens ***equal*** to the total magnification before the switching of the objective lens.

Contrary to feature **5** of claim 1, in E1, the zoom magnification determining section determines a zoom magnification to provide a desired total magnification. Since, in E1, the desired total magnification is necessarily different from the initial total magnification, the total magnification after the switching of the objective lens, in E1, is ***different*** from the total magnification before the switching of the objective lens.

Since feature **5** is novel over E1, feature **6**, which merely defines that the zoom section is effectively controlled as determined in feature **5**, is novel over E1, too.

1.3.2 The opponent did not put forward any specific argument against the patentee's and the board's understanding of the disclosure of E1, according to which in E1 the total magnification after switching of the objective lens is ***different*** from the total magnification before the switching of the objective lens.

1.3.3 The opponent argued that features **5** and **6** have to be interpreted more broadly in the sense that these features do ***not*** define ***equality*** between the total magnification

before and after switching the objective lens (O1, pages 5 and 6, point 4). In the opponent's view, the feature "set equal" in features **5** and **6** can also be realised if there is a certain change of the total magnification ("eine gewisse[] Änderung der Gesamtvergrößerung"; O1, page 6, lines 1 to 3). During the oral proceedings, the opponent submitted, in view of the board's opinion that claims 2 and 3 are sufficiently disclosed, that "equal" had to be interpreted as meaning "equal only if possible".

The board cannot agree with the opponent's interpretation of features **5** and **6**. The term "equal" in features **5** and **6** means that the total magnification before and after switching the objective lens is the same within physically feasible limits. This excludes values from being covered by the wording of features **5** and **6** if they are only similar but different from each other. As stated by the patentee, "*equal* should be interpreted to mean just that, *having the same quantity*" (P1, page 11, last paragraph; emphasis in original). Moreover, the fact that claims 2 and 3 define additional features of the microscope of claim 1 does not have an effect on the meaning of features **5** and **6** defining the equality of the total magnification before and after switching the objective lens.

1.4 Novelty in view of E2

The subject-matter of claim 1 is novel over E2 (Article 54(1) EPC).

1.4.1 In the board's opinion, E2 does not disclose a zoom magnification determining section configured to determine a zoom magnification that keeps the total magnification after the switching of the objective lens ***equal*** to the total magnification before the switching of the objective

lens. As explained in the appealed decision, in E2, starting from an image having a certain magnification, "the user chooses a certain area A which he wants to be displayed on the screen. The system then calculates a ratio ('Teilungsverhältnis') of this area A to the overall area of the screen and then chooses a certain magnification of the objective lens placed in the observation optical path and a magnification of the optical zoom lens to achieve this ratio" (appealed decision, point 16.21). In this way, the final total magnification after the objective lens is switched, in E2, is ***different*** from the total magnification before the objective lens is switched. Therefore, E2 does not disclose features **5** and **6**.

1.4.2 During the oral proceedings (see also O1, point 5.2), the opponent referred to the third embodiment of E2, in which no desired total magnification was entered into the system, but the objective lens was manually selected. According to the opponent, in this configuration the microscope of E2 would calculate and implement a zoom magnification such that the total magnification after the manual switching of the objective lens would remain equal to the total magnification before the switching of the objective lens.

In the board's view, the opponent's claim that the microscope would perform a zoom magnification in such a way that the total magnification would remain constant after manual switching of the objective lens is a mere allegation. When asked during the oral proceedings where in E2 this operation of the microscope was disclosed, the opponent first referred to E2, page 16, lines 30 to 34, and also to the further sentences of that paragraph bridging pages 16 and 17. The opponent additionally referred to E2, page 17, line 21 to page 18, line 20.

However, as convincingly explained by the patentee during the oral proceedings, nothing is said in the passages referred to by the opponent, or in any other passage of E2, about what happens if the revolver is turned manually. In particular, E2 does not disclose that the total magnification remains constant after the manual switching of the objective lens.

1.5 Inventive step in view of E1

The subject-matter of claim 1 involves an inventive step over E1 (Article 56 EPC).

1.5.1 Claim 1 differs from the microscope of E1 in that it comprises features **5** and **6**.

1.5.2 The board agrees with the patentee that the technical effect of the distinguishing features **5** and **6** is that the user is prevented "from missing an observation position on the sample [when switching the objective lens]. This leads to a microscope with an improved operability. [...] There are many reasons why the user may prefer a different objective lens: it may be brighter, have improved distortion characteristics, or may have a preferable working distance. The objective technical problem solved over E1 can therefore be considered as how to improve the operability of the microscope in E1" (P1, page 20, second and third paragraphs). Starting from E1 and confronted with the objective technical problem, the skilled person would have no reason to improve the operability of the microscope by offering the exchange of the objective lens. Indeed, "[i]n E1, the independent switch of an objective lens during the observation of a specimen is not even considered. In E1, there is only one objective lens for a desired magnification, and this is not subject to arbitrary user selection" (P1, page 20, fourth paragraph).

Actually, "t]he problem addressed by the invention manifests itself when the objective lens is allowed to be switched independently, which is not considered in E1. Hence, the problem would not be apparent to the skilled person starting from E1" (P1, page 20, last paragraph).

As explained by the patentee during the oral proceedings (see also P1, page 21, first paragraph), in E1, the operation of the microscope is based on the fact that, at the beginning, a desired total magnification is specified by the user (E1, [0077] to [0079]; see e.g. step S1 in the flowchart of figure 5, E1). This desired total magnification is assigned a *unique* combination of an optical lens magnification (objective lens and tube lens) and a zoom magnification. All subsequent steps are carried out automatically by the microscope control unit (29). The only thing the skilled person can then do is to change the desired total magnification by entering a new desired total magnification, different from the previous one, into the control unit of the microscope, whereupon the control unit again assigns a *unique* combination of optical magnification and zoom magnification to the new desired total magnification, different from the previous combination. This means that the entire concept of the microscope of E1 is not suitable for enabling the objective lens to be replaced independently of the automatic adjustment of the zoom magnification as defined in claim 1. A complete redesign of the application concept and the operation of the microscope of E1 would be necessary. However, this goes beyond the capabilities of the skilled person.

It is to be pointed out that the objective technical problem cannot be formulated as how to avoid missing an observation position when switching the objective lens,

since this would constitute an undue pointer to the claimed solution.

Since there is no hint in E1 or in any other prior art document to switch a microscope objective lens and still keep the total magnification constant, features **5** and **6** involve an inventive step over E1.

1.5.3 The opponent submitted the following arguments in writing (O1, point 6.1) and orally during the oral proceedings in favour of lack of inventive step of the subject-matter of claim 1 in view of E1:

(a) According to the opponent, referring to figure 2 of E1, if the zoom magnification were continuously changed from a smaller to a larger zoom magnification, a situation would arise in which the zoom magnification could not be increased any further and the objective lens would have to be changed in order to obtain a larger lens magnification (the opponent refers to the "vertical lines" in figure 2 of E1). In the opponent's view, this switching of the objective lens could only be accompanied by one of the two following alternatives (O1, point 6.1, pages 8 and 9):

(1) a zoom magnification was provided so that the new total magnification was set equal to the total magnification obtained before the switching of the objective lens, or

(2) a zoom magnification was provided so that the new total magnification was slightly larger than the total magnification obtained before the switching of the objective lens.

Alternative (1) corresponded to features **5** and **6** of claim 1. Since the selection of one possibility out of two could not involve an inventive step, features **5** and **6** could not contribute to an inventive step. Therefore, in the opponent's view, the subject-matter of claim 1 was obvious in view of E1.

(b) During the oral proceedings, the opponent further explained that figure 2 of E1 showed a "jump position" ("Sprungstelle") of the total magnification, namely at the position where the total magnification was 10x. At this "jump position", the electric zoom was at the upper limit of its range, namely 2x, and the optical lenses had to be changed in order to provide a higher optical magnification. It would be obvious for the skilled person to foresee a microscope which would reduce the zoom magnification from 2x to 1x at this "jump position", thereby arriving at a microscope comprising features **5** and **6**. Indeed, it would be technically undesirable and of little practical use to leave the zoom magnification unchanged at 2x, so that the total magnification jumped from 10x to 20x.

The opponent made it clear that it was not referring to the operation of the microscope as described in figures 5 and 6 of E1, where a specific and unique desired total magnification was entered into the control unit of the microscope, but to the operation of the microscope using the up and down buttons for continuous adjustment of the total magnification, described in paragraph [0069] of E1. To support its interpretation of the use of the buttons, the opponent referred to paragraphs [0066] and [0099] of E1, disclosing that the total magnification and the zoom magnification can be adjusted to *any* value within a

certain range ("auf jeden Wert": [0066]; "Da jeder Wert": [0099]). Even though E1 did not explicitly disclose that the displayed specimen should be observed under a continuously variable total magnification, it was an obvious improvement of the operability of the microscope.

1.5.4 The board is not convinced by the opponent's arguments.

(a) Alternative (1) does not occur in E1: in the situation where the zoom magnification cannot be increased any further, so that the objective lens is switched to provide a larger lens magnification, the new total magnification necessarily becomes larger than the total magnification before the switching of the objective lens. There is no mention in E1 that in that situation the zoom magnification is reduced to compensate for the larger lens magnification. The description in E1, [0069], of how to control the magnification of the microscope in E1 confirms that the total magnification necessarily varies and that it does not remain constant after switching the objective lens.

(b) E1 does not disclose, either explicitly or implicitly, that the total magnification can be continuously varied. Moreover, it is not obvious to modify the microscope of E1 to enable such a continuously variable total magnification. Indeed, the total magnification of the microscope is obtained by a combination of the optical magnification of the objective lens, the optical magnification of the tube lens and the electric zoom magnification. While a continuously variable electric zoom magnification could be seen as an obvious possibility, the two

optical magnifications can by their nature only be varied discretely.

In the following, it is assumed for argument's sake that the up and down buttons described in paragraph [0069] of E1 vary the total magnification of the microscope continuously, starting from the lower end of 5x total magnification (see figure 2 of E1). The "jump position" in figure 2 of E1, referred to by the opponent in point 1.5.3(b) above, corresponds to a 10x total magnification, obtained by combining a 5x optical magnification and a 2x zoom magnification. When the "jump position" at 10x total magnification is reached from the lower total magnification side and the total magnification is continuously further increased, the optical lens with 5x optical magnification is replaced by an optical lens with 10x optical magnification. It is likely that the zoom magnification should not stay at the 2x value it had before the lens was switched, but should drop to a value close to 1x in order to provide a continuously variable total magnification. However, the board sees no obvious reason why the zoom magnification should be set to 1x, resulting in a total magnification equal to the total magnification before the switching of the lens. Nor did the opponent provide a convincing reason why the total magnification should remain constant while the total magnification is continuously changed. In particular, it would not have any effect on the operability of the microscope and hence not contribute to solve the objective technical problem.

In conclusion, the board is not convinced by the opponent's arguments that it was obvious to maintain constant the total magnification when switching the objective lens.

1.6 Inventive step in view of E2

The subject-matter of claim 1 involves an inventive step over E2 (Article 56 EPC).

1.6.1 Claim 1 differs from the microscope of E2 (just as from the microscope of E1) in that it comprises features **5** and **6**.

1.6.2 The objective technical problem solved by the subject-matter of claim 1 over E2 can therefore also be considered as how to improve the operability of the microscope of E2. In E2 (unlike in E1), the user is enabled to manually switch the objectives. Starting from E2 and confronted with the objective technical problem, the skilled person would have no reason "to consider that the operability of the microscope of E2 could be improved by ensuring that the total magnification remains equal before and after the objective lens is switched" (P1, page 22, first paragraph). Indeed, in E2, the manual switching of the objective lens serves specifically the purpose to obtain a new desired total magnification of the displayed image ("so kann die Vergrößerung durch Drehen des Revolvers von Hand gewählt werden", E2, page 20, lines 31 and 32). Changing the zoom magnification to compensate for the change in magnification produced by the objective lens, namely to maintain constant the total magnification, would effectively counter the objective of manually selecting a new magnification.

Since there is no hint in E2 or in any other prior art document to switch a microscope objective lens and still keep the total magnification constant, features **5** and **6** involve an inventive step over E2.

1.6.3 The opponent argued in writing (O1, page 7, last paragraph) that the subject-matter of claim 1 lacks an inventive step in view of E2 for the reason that E2 disclosed an embodiment in which the objective lens is switched manually and that in such a case, the zoom magnification is automatically adjusted so that the total magnification remains constant (E2, page 20, lines 11 to 17 and lines 29 to 32; claim 6).

The board cannot follow the opponent's reasoning. As submitted by the patentee (P1, point 8.2, pages 21 and 22), the passages of E2, cited by the opponent, merely disclose that the objective lens can be selected manually, but provide no hint to adjust the zoom magnification so as to keep the total magnification constant.

1.6.4 During the oral proceedings, the opponent further argued that it would be obvious for the skilled person to improve the operability of the microscope by keeping constant the total magnification after having changed manually the objective lens so as to maintain unchanged the initially selected division ratio of the displayed image ("Teilungsverhältnis").

The board is not convinced by this argument. As submitted by the patentee during the oral proceedings, E2 does not even disclose the manual switching of the objective lens in combination with an automatic setting of the zoom magnification. In fact, the manual operation mode is a stand-alone alternative to the fully automatic operation mode in which both the optical lens magnification and the zoom magnification are selected automatically. Since E2 (or any other prior art document) does not disclose the problem of how to improve the operability of the microscope, nor the solution for keeping the total magnification constant when switching the objective lens,

the solution defined in features **5** and **6** involves an inventive step.

2. For the above reasons, the board is satisfied that the patent according to the present main request and the invention to which it relates meet the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Grundner R. Bekkering

Decision electronically authenticated