PATENTAMTS

BESCHWERDEKAMMERN BOARDS OF APPEAL OF OFFICE

CHAMBRES DE RECOURS DES EUROPÄISCHEN THE EUROPEAN PATENT DE L'OFFICE EUROPÉEN DES BREVETS

Internal distribution code:

- (A) [] Publication in OJ
- (B) [] To Chairmen and Members
- (C) [] To Chairmen
- (D) [X] No distribution

Datasheet for the decision of 9 June 2016

Case Number: T 0365/13 - 3.2.05

Application Number: 06718872.2

Publication Number: 1838534

IPC: B41J2/21, B41J11/00

Language of the proceedings: ΕN

Title of invention:

Methods and Apparatus for Backlit and Dual-Sided Imaging

Patent Proprietor:

Electronics for Imaging, Inc.

Opponent:

Durst Phototechnik Digital Technology GmbH

Relevant legal provisions:

EPC 1973 Art. 54, 56 RPBA Art. 13(1)

Keyword:

Novelty - main request (no) Inventive step - obvious modification Late-filed auxiliary requests - request clearly allowable (no)



Beschwerdekammern Boards of Appeal Chambres de recours

European Patent Office D-80298 MUNICH GERMANY Tel. +49 (0) 89 2399-0 Fax +49 (0) 89 2399-4465

Case Number: T 0365/13 - 3.2.05

D E C I S I O N

of Technical Board of Appeal 3.2.05

of 9 June 2016

Appellant: Durst Phototechnik Digital Technology GmbH

(Opponent) Julius-Durst-Straße 11

9900 Lienz (AT)

Representative: Claus Heine-Kempkens

Landstrasse 2

CH-7304 Maienfeld (CH)

Respondent: Electronics for Imaging, Inc.

(Patent Proprietor) 303 Velocity Way

Foster City, CA 94404 (US)

Representative: Tankred Klaus Zimmermann,

Schoppe, Zimmermann, Stöckeler Zinkler, Schenk & Partner mbB

Patentanwälte Radlkoferstrasse 2

Radlkoferstrasse 2 81373 München (DE)

Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 17 December 2012 rejecting the opposition filed against European patent No. 1838534 pursuant to Article

101(2) EPC.

Composition of the Board:

J. Geschwind

- 1 - T 0365/13

Summary of Facts and Submissions

- I. The appeal is directed against the decision of the opposition division rejecting the opposition filed against European patent No. 1 838 534.
- II. The opposition was filed against the patent as a whole based on Article 100(a) EPC (lack of novelty, Article 54 EPC 1973 and lack of inventive step, Article 56 EPC 1973).
- III. Oral proceedings were held before the board of appeal on 9 June 2016.
- IV. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.
- V. The respondent (patent proprietor) requested that the appeal be dismissed (main request) or, in the alternative, that the decision under appeal be set aside and that the patent be maintained on the basis of one of the 1st to 3rd auxiliary requests filed with letter of 9 May 2016.
- VI. Claim 1 of the patent in suit as granted (main request) reads as follows:
 - "A printing method comprising:

printing a first image on a substrate (80) using a first set of nozzles from a first print head (25); printing a coating layer (83) over the first image (82) using a second set of nozzles from a second print head (27), the first (25) and second (27) print heads being arranged in a print head array (20) along a single print head axis (a-a);

- 2 - T 0365/13

characterised by further comprising the step of printing a second image (84) over the coating layer (83) using a third set of nozzles from the first print head (25)."

VII. The amendments made in claim 1 according to the 1st auxiliary request with respect to claim 1 according to the main request have been indicated in bold by the board. Claim 1 according to the 1st auxiliary request reads:

" A printing method comprising:

printing a first image on a substrate (80) using a first set of nozzles from a plurality of first print head (25); and

printing a coating layer (83) over the first image (82) using a second set of nozzles from a second print head (27), the first (25) and second (27) print heads being arranged in a print head array (20) along a single print head axis (a-a);

wherein the print heads (25, 27) are moved in a direction of travel back and forth across the substrate (80),

wherein the print head axis (a-a) is parallel to the direction of travel,

wherein, along a direction of movement of the substrate, a leading portion of the nozzles of the first print head includes the first set of nozzles,

wherein, along the direction of movement of the substrate, a middle portion of the nozzles of the second print head includes the second set of nozzles, and

wherein, along the direction of movement of the substrate, a trailing portion of the nozzles of the first print head includes a third set of nozzles, - 3 - T 0365/13

characterised by further comprising the step of printing a second image (84) over the coating layer (83) using athe third set of nozzles from the first print head (25),

wherein only the leading portion and the trailing portion of the nozzles of the first head are used for printing, and only the middle portion of the nozzles of the second print head is used for printing."

- VIII. The amendments made in claim 1 according to the 2nd auxiliary request with respect to claim 1 according to the 1st auxiliary request have been indicated in bold by the board and only involve the text
 - " wherein the print heads (25, 27) are moved in a direction of travel back and forth across the substrate (80),

wherein the print head axis (a-a) is parallel to the direction of travel"

being replaced by

" wherein the print heads (25, 27) are positioned adjacent to one another in a carriage (18) and moved in a direction of travel of the carriage (18) back and forth across the substrate (80),

wherein the print head axis (a-a) is parallel to the direction of travel of the carriage (18)".

- IX. The amendments made in claim 1 according to the 3rd auxiliary request with respect to claim 1 according to the 2nd auxiliary request have been indicated in bold by the board. Claim 1 according to the 3rd auxiliary request reads:
 - " A printing method comprising:

 printing a first color image on a translucent or

 clear substrate (80) using a first set of nozzles from

- 4 - T 0365/13

a plurality of first print head \mathbf{s} (25); and

printing a coating layer (83) over the first **color** image (82) using a second set of nozzles from a second print head (27), the first (25) and second (27) print heads being arranged in a print head array (20) along a single print head axis (a-a);

wherein the print heads (25, 27) are positioned adjacent to one another in a carriage (18) and moved in a direction of travel of the carriage (18) back and forth across the substrate (80),

wherein the print head axis (a-a) is parallel to the direction of travel of the carriage (18)

wherein, along a direction of movement of the substrate, a leading portion of the nozzles of the first print heads includes the first set of nozzles,

wherein, along the direction of movement of the substrate, a middle portion of the nozzles of the second print head includes the second set of nozzles, and

wherein, along the direction of movement of the substrate, a trailing portion of the nozzles of the first print heads includes a third set of nozzles,

characterised by further comprising the step of printing a second **color** image (84) over the coating layer (83) using the third set of nozzles from the first print heads (25),

wherein only the leading portion and the trailing portion of the nozzles of the first heads are used for printing, and only the middle portion of the nozzles of the second print head is used for printing."

X. The following documents are referred to in the present decision:

E1: DE-A-10 2005 006 092;

E3': WO-A-2005/105452 (in Japanese);

- 5 - T 0365/13

- E3: EP-A-1 741 555 (late published English family member of document E3');
- CD: US 2003/0202026 (cited in paragraph [0009] of the patent in suit).
- XI. The arguments of the appellant in the written and oral proceedings can be summarised as follows:

Main request

Since the first and third sets of nozzles are not characterised by any further features, the subject-matter of claim 1 as granted is not new with respect to document E1, which in particular discloses the print heads 31 and 32 arranged in a print head array along a single print head axis. Furthermore, the wording of claim 1 does not exclude the presence of additional print heads for additional colours.

1st to 3rd auxiliary requests

The auxiliary requests were only filed one month before the oral proceedings even though the lack of novelty objection with respect to document E1 was raised in the notice of opposition. This unfairly leaves only a short period of time (when compared to the nine months opposition period) for the opponent to adapt to new subject-matter taken from the description. The $1^{\rm st}$ to $3^{\rm rd}$ auxiliary requests should not be admitted into the procedure at this late stage since they do not overcome the grounds of opposition.

Starting from document E3' and, in particular, from the variant of the front recording mode (figure 3B) or back recording mode (figure 3C) which only uses one third of the nozzles on the upstream side or one third of the

T 0365/13

nozzles on the downstream side (paragraph [0043]), the skilled person will be motivated by paragraphs [0114] and [0115] of document E1 to print a further image on the other side of the white coating layer in the same printing operation using the remaining third of nozzles and thereby immediately arrive at the subject-matter of claim 1 according to the $3^{\rm rd}$ auxiliary request. Therefore, the subject-matter of claim 1 according to the $3^{\rm rd}$ auxiliary request does not involve an inventive step.

As noted by the chairman of the board during oral proceedings, claim 1 according to the $1^{\rm st}$ and $2^{\rm nd}$ auxiliary request respectively correspond to claim 1 according to $3^{\rm rd}$ auxiliary request with some of its features deleted. In consequence, the conclusion concerning the lack of inventive step applies likewise to the respective claim 1 according to the $1^{\rm st}$ and $2^{\rm nd}$ auxiliary request.

XII. The arguments of the respondent in the written and oral proceedings can be summarised as follows:

Main request

Print head arrangements 31 and 32 of the printing apparatus of document E1 are not arranged in a print head array along a single print head axis: the axis linking print head 31 (white) to the part of print head arrangement 32 ejecting cyan ink is different from that linking print head 31 (white) to the part of print head arrangement 32 ejecting magenta ink and is different again from that linking print head 31 (white) to the part of printhead arrangement 32 ejecting yellow ink, etc. In addition, the first and third sets of nozzles should be understood as non-overlapping on the basis of

- 7 - T 0365/13

the embodiment of figure 10 of the patent in suit. The use of non-overlapping sets of nozzles for printing the first and second images is not disclosed in document E1. In consequence of these two differences, the subject-matter of claim 1 as granted is new with respect to document E1.

1st to 3rd auxiliary requests

The 1st to 3rd auxiliary requests are filed in reaction to the provisional opinion of the board as annexed to the summons to oral proceedings: The subject-matter of the respective claim 1 according to the 1st to 3rd auxiliary requests respectively define the print head axis and the sets of nozzles with increasing precision. Since the opposition division had found in the respondent's favour and the appeal appeared to be based on arguments similar to those presented on opposition, the respondent had no reason to file auxiliary requests any earlier. Therefore, the auxiliary requests should be admitted into the proceedings.

Since the board is prepared to discuss the substance of the $1^{\rm st}$ to $3^{\rm rd}$ auxiliary requests before taking a final decision on their admissibility, the objection to the introduction of late filed document E3' is not maintained.

Document E1 does not teach that print modes may be combined. There is thus no teaching in document E1 which would motivate the skilled person starting from document E3' to seek to combine two separate modes of operation, "front recording mode" (figure 3B) and "back recording mode" (figure 3C). Therefore, the subjectmatter of claim 1 according to the 3rd auxiliary request involves an inventive step.

- 8 - T 0365/13

Reasons for the Decision

Main request

- 1. Understanding features of granted claim 1
- 1.1 "The first (25) and second (27) print heads being arranged in a print head array (20) along a single print head axis (a-a)":

Since the "print head axis" is not further defined in granted claim 1, the board has to interpret it. The following paragraphs of the patent as granted relate to this axis (emphasis added by the board):

[0002]: "As the carriage scans back and forth along the direction of the **print head axis**, the print heads deposit ink across the width of the substrate".

According to this passage, the "print head axis" is synonymous with the axis along which "the carriage scans back and forth".

[0008]: "Methods and apparatus in accordance with this invention use an array of print heads arranged along a single print head axis to print images and a coating layer on a substrate during a single printing step (i.e., without requiring separate pre-coat or post-coat processing)". This passage merely repeats the wording used in the claims without providing any further insight.

[0009]: "Apparatus and methods in accordance with this invention advantageously use a conventional print head array, in which the print heads are arranged along a single print head axis, see for example document US

- 9 - T 0365/13

2003/0202026 which discloses the preamble of claims 1 and 2". This passage refers to a "conventional print head array" and to document CD which only discloses that several print heads are provided on a moving carriage which scans in a forward and reverse direction (paragraphs [0012] and [0013], figure 1).

SCAN MECHANISM

CARRIAGE ASSEMBLY

F K C M Y OC

12a 12c 12e

MEDIA FEED MECHANISM

PRINTER

Y1

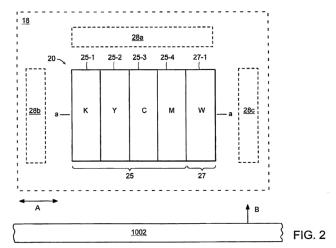
110

In particular, figure 1 represents the print heads 12a to 12f and all other components in abstract form as rectangles and thus does not provide any further information concerning the *conventional "print head array"* or the "single print head axis".

[0015]: "As shown in FIG. 2, the first group 25 and the second group 27 of print heads are positioned adjacent to one another in carriage 18, and aligned along an axis a-a that is substantially parallel to the direction of arrow A, which is the direction of travel of carriage 18". This passage discloses that the "print heads are positioned adjacent to one another" and again that the axis a-a is along the "direction of travel of carriage 18".

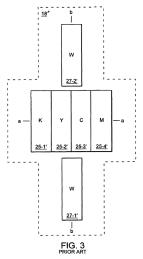
[0016]: "The exemplary arrangement shown in FIG. 2 advantageously allows for sequential, multi-channel printing operations using a single series of print heads 20 aligned along a single print head axis a-a".

- 10 - T 0365/13



This passage refers to figure 2 in which the print heads 20 and all other components are represented in abstract form as rectangles, thus not providing any further information concerning the "single series of print heads" or the "single print head axis".

[0019] (the preceding paragraph discusses figure 3):
"Unlike the arrangement of FIG. 2, print head 27-1' is
not aligned with the first group of print heads 25'
along axis a-a, but instead is disposed adjacent to the
leading edge of the first group of print heads 25'
along axis b-b" and "Similarly, print head 27-2' is not
aligned with the colored ink print heads along axis aa, but is disposed adjacent to the trailing edge of
print heads 25' along axis b-b".



- 11 - T 0365/13

This passage refers to figure 3 in which print heads 25-1' to 25-4', 27-1' and 27-2' are represented in abstract form as rectangles and thus does not provide any further information concerning the feature "aligned ... with ... print heads along axis ...". In addition, figure 3 concerns prior art and is thus not representative for determining the meaning of features of granted claim 1.

The only clear teaching provided in the patent in suit is that:

the "print head axis" is synonymous with the axis along which "the carriage scans back and forth"; and the "print heads in a print head array" can encompass any "conventional print head array" and it is sufficient for the print heads to be positioned adjacent one another along the axis along which "the carriage scans back and forth".

The board notes that the term "print head axis" is only defined in the description in the context of print heads on a carriage which "scans back and forth". The description thus does not provide any guidance concerning the meaning of "print head axis" in printers without such a carriage. In particular, a carriage does not constitute a necessary part of the subject-matter of claim 1, as implied by the subject of dependent claim 14.

Since the only specific meaning disclosed in the description is the subject-matter of claim 15, the meaning of "print head axis" as used in claim 1 is its literal meaning, i.e. any (arbitrary) axis passing through the print heads. The board notes that this requirement is vacuous in the context of only two print

- 12 - T 0365/13

heads, because two separate points (e.g. one in each print head) uniquely define a single axis.

1.2 "First/third set of nozzles from a first print head"

As part of his common general knowledge, the person skilled in ink jet printing knows that printing necessarily involves operating a set of print head nozzles: during printing, which nozzles are used is determined by the image to be printed. If no nozzle is used, the set of used nozzles is empty and the printing apparatus simply does not print. In consequence, printing a first image with a first print head implies using a first set of nozzles. Similarly, printing a second image with the same first print head also requires using a set of nozzles. Again which nozzles are used, is determined by the (second) image to be printed. This further set of nozzles may be arbitrarily labelled as a "third" set of nozzles. Depending on the first and second images to be printed, the "first set of nozzles from a first print head" and the "third set of nozzles from a first print head" may be disjoint, overlap to some extend or even be identical.

It was argued on behalf of the respondent, that the embodiment of figure 10 should be used to interpret the "first set of nozzles from a first print head" and a "third set of nozzles from the first print head" as being necessarily disjoint. This is the case in the embodiment of figure 10, because each print head nozzle is uniquely attributed to one, and only one, of the different sets (paragraphs [0039] and [0040]).

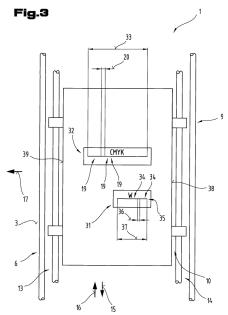
Although the subject-matter of claim 1 identifies a "first set of nozzles from a first print head" and a "third set of nozzles from the first print head" as

- 13 - T 0365/13

well as a "second set of nozzles from a second print head", these sets of nozzles are not subject to any further features or requirements. Thus, the subject-matter of claim 1 is not limited to the embodiment of figure 10 since claim 1 does not uniquely attribute each print head nozzle to one, and only one, of the different sets. Therefore, claim 1 merely introduces a naming convention for the sets of nozzles used when printing but does not impose any additional requirements.

2. Novelty (Article 100(a) EPC and Article 54 EPC 1973)

Document E1 discloses an ink jet printer (paragraph [0001]) with two print head arrangements 31, 32 ("Farb-Druckkopf-Anordnung 32", "Druckkopf-Anordnung 31") compactly arranged on a carriage (paragraph [0029], claims 29 and 30, figures 3 to 5 and 13). Print head arrangement 32 is for four colour printing, i.e. for printing images, and print head arrangement 31 is for printing a white coating layer (paragraphs [0066] and [0067]).



- 14 - T 0365/13

According to paragraphs [0114] and [0115], figure 19 the printer is suitable for:

printing a first image 83 on a substrate 3 using nozzles from a first print head arrangement 32;

printing a coating layer 84 over the first image 83 using nozzles from a second print head arrangement 31, the first 32 and second 31 print head arrangements being arranged in a print head array (figures 3 to 5 and 13) along a single print head axis; and

printing a second image 85 over the coating layer 84 using nozzles from the first print head arrangement 32.

As already set out above, the person skilled in ink jet printing knows as part of his common general knowledge, that printing an image involves using the nozzles of a print head. In particular, when printing a first image with a first print head, a first set of nozzles will be used and when printing a second image, a set of nozzles of the first print head will again be used. This latter set of nozzles may be arbitrarily called a "third set of nozzles". Similarly, when printing a coating from a second ink jet print head, a set of nozzles will have to be used. This set of nozzles may be arbitrarily called a "second set of nozzles" (see point 1.2 above).

It was argued on behalf of the respondent that the colour print head arrangement 32 ("Farb-Druckkopf-Anordnung 32") consists of separate print heads for each of the colours cyan, magenta, yellow and black disposed next to each other along the print head arrangement 32 (figure 3). Respective axes linking each of these colour print heads with the second (white) print head arrangement 31 ("Druckkopf-Anordnung 31") would constitute a fan of distinct axes intersecting at the white print head 31: the printing apparatus of

- 15 - T 0365/13

document E1 is thus distinguished from the subjectmatter of claim 1 in that the condition that a *single* print head axis should link the prior art print heads 31 and 32 is not satisfied.

Document E1 discloses two print head arrangements 31, 32 compactly arranged on a carriage (paragraph [0029], claims 29 and 30, figures 3 to 5 and 13): the board understands figure 3 as showing print heads 31 and 32 arranged along the carriage axis of travel on the same carriage 10, both undergoing the same back and forth movements (arrows 15 and 16) as the carriage 10 travels along the guides 13 and 14 (paragraph [0060]). These print heads are thus arranged in a "print head array" along a single print head axis which correspond to the direction of back and forth movement 15, 16 of the carriage. Since the subject-matter of claim 1 neither defines the term print head as necessarily limited to emitting a single colour, nor excludes the potential presence of further print heads, document E1 also discloses the feature that the first 32 and second 31 print heads are arranged in a print head array along a single print head axis.

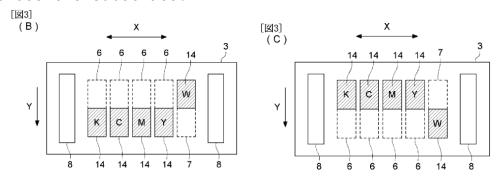
In consequence, the subject-matter of granted claim 1 is not new with respect to document E1 (Article 100(a) and 54 EPC 1973).

1st to 3rd Auxiliary requests

- 3. Claim 1 according to the 3rd auxiliary request Inventive step (Article 56 EPC)
- 3.1 Admissibility of document E3'

Since the respondent withdrew its objection to the introduction of late filed document E3' during oral proceedings and this document is relevant to the issue of inventive step, the board introduces it into the proceedings.

3.2 Document E3' constitutes the closest prior art and discloses an inkjet recording apparatus 1 including a carriage 3 reciprocally moving along guide rails 2 extending in a scanning direction X. The carriage 3 carries image recording heads 6 formed with nozzles for jetting image recording inks in yellow (Y), magenta (M), cyan (C) and black (K). The carriage also carries an auxiliary recording head 7 with nozzles for jetting white ink (W) for recording a solid white background, the recording heads being disposed in a row in the scanning direction X (see paragraphs to corresponding English paragraphs [0017] and [0018] in document E3). These print heads are thus disposed adjacent to one another along a single print head axis X and are moved with the carriage back and forth along direction X across the substrate.



Document E3' further discloses "a front recording mode which jets white ink in a solid state onto the front surface of the recording medium 5 and records an image by the use of image recording inks on the white ink, and a back recording mode which records an image on the back surface of the recording medium 5 by the use of image recording inks and jets white ink in a solid

- 17 - T 0365/13

state on the image" (paragraph [0028] of corresponding English language document E3).

Document E3' teaches that "in the front recording mode and in the back recording mode, half of the nozzles on the upstream side or half of the nozzles on the downstream side of the nozzle array is selected for each head 6 or head 7, as an ink jetting area 14" and that is also "allowed to select, for example, one third of the nozzles on the upstream side or one third of nozzles on the downstream side" (paragraphs [0030], [0031] and [0043] of corresponding English language document E3, figures 3B and 3C).

The substrates for printing on include glass and "transparent non-ink-absorbing resin film used for soft packaging is preferably applied in the present embodiment" (paragraph [0020] of corresponding English language document E3).

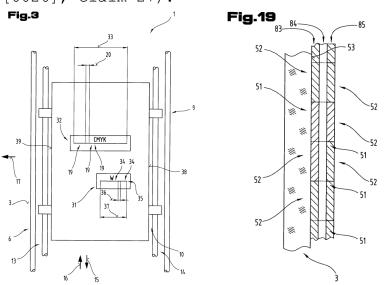
3.3 The subject-matter of claim 1 differs therefrom in further comprising the step of printing a second image over the coating layer using a third set of nozzles from the first print head.

According to the patent in suit (column 12, lines 38 to 44), the technical effect thereof is that a second image may be printed in the same printing operation and be precisely aligned with the first image (which avoids the images appearing "fuzzy" when backlit and viewed through the transparent substrate).

3.4 The objective problem is thus to print a precisely aligned second image on the other side of the coating layer in the same printing operation.

- 18 - T 0365/13

3.5 The skilled person starting from document E3' and seeking to solve this objective problem will consult document E1, which teaches printing a first colour image 83 on a transparent substrate 3 (paragraph [0114]). A white coating layer 84 is then printed over this first colour image 83. Finally a second colour image 85 is printed onto this white coating layer 84 (figure 19). Document E1 teaches that the first colour image 83, the white coating layer 84 and the second colour image 85 are printed in a single printing process and are thus precisely aligned (paragraph [0115], [0026], claim 27).



The skilled person, who noted that in the "front recording mode" the first image is missing and in the "back recording mode" the second image is missing, is thus motivated by the teaching of document E1, to use the unused third of nozzles in either the "front recording mode" or the "back recording mode" for printing the additional image on the other side of the white coating layer. In order to achieve the layering image-coating-image disclosed in figure 19 of document E1, the skilled person has to use the middle third of the print head 7 for printing the white coating layer.

- 19 - T 0365/13

The skilled person thus arrives at the subject-matter of claim 1 without requiring an inventive step.

The argument of the respondent that document E1 does not motivate the skilled person to combine different recording modes (such as the "front recording mode" or the "back recording mode" of document E3') does not affect the above reasoning, because the skilled person only needs to modify one of the "front recording mode" or the "back recording mode" of document E3' in accordance with the teaching of document E1 to arrive at the subject-matter of claim 1.

The subject-matter of claim 1 according to the $3^{\rm rd}$ auxiliary request does not meet the requirements of Article 100(a) EPC in combination with Article 56 EPC 1973.

3.6 Claim 1 according to the 1st and 2nd auxiliary request respectively correspond to claim 1 according to 3rd auxiliary request with some of its features deleted. The above arguments concerning a lack of inventive step thus apply likewise to the subject-matter of the respective claim 1 according to the 1st and 2nd auxiliary request.

The subject-matter of claim 1 respectively according to the $1^{\rm st}$ and $2^{\rm nd}$ auxiliary request does not meet the requirements of Article 100(a) EPC in combination with Article 56 EPC 1973.

3.7 Admissibility of the 1^{st} to 3^{rd} auxiliary requests

According to Article 13(1) RPBA, any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the board's

- 20 - T 0365/13

discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

In addition, the following criteria may be taken into account for the exercise of discretion: whether or not there are good reasons for the late filing and whether or not the amendments and submissions are relevant to a resolution of the issues to be discussed at the oral proceedings.

In the present case the subject-matter of the respective claim 1 according to the 1st to 3rd auxiliary requests does not meet the requirements of Article 56 EPC. In consequence, these auxiliary requests do not overcome the grounds of opposition raised under Article 100(a) EPC. For this reason, the board exercises its discretion under Article 13(1) RPBA to not admit these requests into the proceedings.

- 21 - T 0365/13

Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The patent is revoked.

The Registrar:

The Chairman:



D. Meyfarth

M. Poock

Decision electronically authenticated