Internal distribution code:

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

Datasheet for the decision of 10 December 2025

Case Number: T 1567/23 - 3.2.05

Application Number: 16777745.7

Publication Number: 3356153

IPC: B42D25/23, B42D25/24, B42D25/29, B42D25/351, B42D25/373, B42D25/378, B42D25/45

Language of the proceedings: EN

Title of invention:
Security print media and method of manufacture thereof

Patent Proprietor:
De La Rue International Limited

Opponent:
CCL Secure Pty Ltd

Relevant legal provisions:
EPC Art. 100(a), 100(b), 54, 56
RPBA 2020 Art. 13(2)

Keyword:
Grounds for opposition - insufficiency of disclosure (no) - lack of novelty (no) - lack of inventive step (no)
Amendment after summons (no)

Decisions cited:
T 2361/17

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 1567/23 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 10 December 2025

Appellant: (Opponent)	CCL Secure Pty Ltd Potter Street Craigieburn VIC 3064 (AU)
Representative:	Lincoln IP 4 Rubislaw Place Aberdeen AB10 1XN (GB)
Respondent: (Patent Proprietor)	De La Rue International Limited De La Rue House Jays Close Viables Basingstoke, Hampshire RG22 4BS (GB)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 7 June 2023 rejecting the opposition filed against European patent No. 3356153 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	P. Lanz
Members:	M. Holz
	B. Burm-Herregodts

Summary of Facts and Submissions

I. The opponent (appellant) filed an appeal against the opposition division's decision rejecting the opposition against European patent No. 3 356 153 (the patent).

II. The patent proprietor (respondent) filed a reply to the appellant's statement of grounds of appeal including sets of claims of auxiliary requests 1 to 12.

On 14 March 2025, the board issued a communication under Article 15(1) EPC providing its preliminary opinion that none of the grounds for opposition raised by the appellant prejudiced the maintenance of the patent and that the appeal would therefore have to be dismissed.

By letter dated 30 June 2025, the appellant filed further substantive submissions.

III. Oral proceedings before the board were held on 10 December 2025.

IV. The appellant requested that:
- the decision under appeal be set aside and that the patent be revoked
- document D8 be admitted into the proceedings

The respondent requested that:
- the appeal be dismissed (main request)
- in the alternative, the decision under appeal be set aside and the patent be maintained as amended on the basis of one of the sets of claims of auxiliary requests 1 to 12 filed with the reply

- the opportunity to adapt the description if needed or the remittal of the case to the opposition division for adaptation of the description
- document D8 not be admitted into the proceedings
- the new arguments in the last paragraph on page 4 and the first and last sentences on page 8 of the appellant's letter of 30 June 2025 not be admitted under Article 13(2) RPBA

V. The following documents submitted during the opposition proceedings are cited in this decision.

D1: AU 2011101065 A4

D3: GB 2 076 337 A

D5: R.L. van Renesse, "Optical Document Security", Artech House, 3rd edn., 2005, ISBN: 1-58053-258-6, pages 89 and 90

D8: H. Kipphan, "Handbook of Print Media", Springer, 2001, ISBN: 3-540-67326-1, pages 90 to 99, 423 to 427, 1118 and 1119

VI. Claim 1 as granted reads as follows (the feature numbering used by the board is included in square brackets).

"**[1.1]** *A security print medium (1) for forming security documents therefrom, comprising* **[1.2]** *a transparent or translucent polymer substrate (5) having first and second opposing surfaces (5a, 5b),* **[1.3]** *and a plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) disposed on the first and/or second surfaces of the polymer substrate (5a, 5b),* **[1.4]** *each of the opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) being a layer of semi-opaque material,* **[1.5]** *wherein in a first region (8) of the substrate a multi-tonal first image (9) is exhibited by the plurality of overlapping*

opacifying layers in combination with one another, **[1.6]** *each of the plurality of overlapping opacifying (6a, 6b, 6c, 6d, 6e, 6f, 6g) layers having gap(s) in which the semi-opaque material of the layer is absent,* **[1.7]** *the gap(s) of each layer being defined in accordance with a different respective sub-image,* **[1.8]** *the sub-images in combination defining the multi-tonal first image (9),* **[1.9]** *whereby the number of opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) overlapping one another at any one location varies across the substrate (5),* **[1.10]** *the resulting variation in optical density of the plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) in combination with one another giving rise to the multiple tones of the multi-tonal first image (9),* **[1.11]** *and the security print medium (1) further comprising a print of a multi-tonal second image (10), different from the first image (9), on the first and/or second surfaces (5a, 5b) of the polymer substrate (5) in a second region* **[1.12]** *and covered from the point of view of an observer on a first side of the security print medium (1) by the plurality of opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) exhibiting the multi-tonal first image (8),* **[1.13]** *the first and second regions at least partially overlapping,* **[1.14]** *whereby when the security print medium (1) is viewed by the observer in reflected light, the first image (9) dominates the appearance of the overlapping area(s) of the first and second regions* **[1.15]** *and when the security print medium (1) is viewed by the observer in transmitted light, the second image (10) dominates the appearance of the overlapping area(s) of the first and second regions."*

Claims 2 to 18 as granted are claims dependent on claim 1 as granted.

Claim 19 as granted reads as follows.

"*A method of making a security print medium (1), comprising:*
providing a transparent or translucent polymer substrate (5) having first and second opposing surfaces (5a, 5b);
applying a print of a multi-tonal second image (10) on the first and/or second surfaces (5a, 5b) of the polymer substrate (5) in a second region;
applying a plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) onto the first and/or second surfaces (5a, 5b) of the polymer substrate (5), each of the opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) being a layer of semi-opaque material, wherein in a first region (8) of the substrate a multi-tonal first image (9) is exhibited by the plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) in combination with one another, each of the plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) having gap(s) in which the semi-opaque material of the layer is absent, the gap(s) of each layer being defined in accordance with a different respective sub-image, the sub-images in combination defining the multi-tonal first image (9), whereby the number of opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) overlapping one another at any one location varies across the substrate (5), the resulting variation in optical density of the plurality of overlapping opacifying layers (6a, 6b, 6c, 6d, 6e, 6f, 6g) in combination with one another giving rise to the multiple tones of the multi-tonal first image (9);
wherein the plurality of overlapping opacifying layers cover the multi-tonal second image (10) from the point of view of an observer on a first side of the security

print medium (1), and the first and second regions at least partially overlap;
whereby when the security print medium (1) is viewed by the observer in reflected light, the first image (9) dominates the appearance of the overlapping area(s) of the first and second regions and when the security print medium (1) is viewed by the observer in transmitted light, the second image (10) dominates the appearance of the overlapping area(s) of the first and second regions."

Claim 20 as granted is a claim dependent on claim 19 as granted.

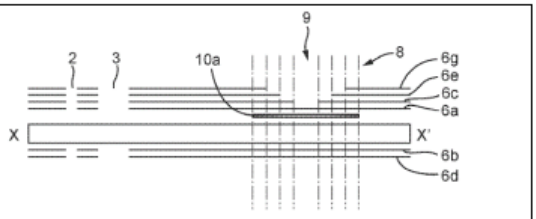
VII. The parties submitted the following.

(a) *Ground for opposition under Article 100(b) EPC*

(i) *Appellant*

The ground for opposition pursuant to Article 100(b) EPC prejudiced the maintenance of the patent as granted. In view of the term "dominates", the skilled person would have been unable to carry out the claimed invention across the entire scope of the claim without undue burden. This term was analogous to the expression "tactile feel" in decision T 2361/17. The board in that decision found that a broad claim was not enabled over its entire scope by a limited number of examples that bore no resemblance to numerical limits used to define the boundaries of the claimed invention.
Paragraphs [0027], [0028], [0046], [0048] and [0049] of the patent did not provide sufficient details on how the claimed invention could be carried out with respect to features 1.14 and 1.15. These features defined a result to be achieved. Regarding the embodiment

illustrated in Figures 2(a), (b) and (c) of the patent, it was difficult to believe that a print working could overwhelm the modulation of light intensity by the opacifying layers disclosed in the last two sentences of paragraph [0047] of the patent. Known inks differed in translucency, colour, brightness and absorbency/ optical density. There were many variables over and above optical densities, colours, brightnesses, etc. that had an impact on the final image appearance. The patent described the end results to be achieved but not how to achieve those results, for example, what inks to use, how "dark" they needed to be or what ink formulations would make the multi-tonal image more absorbent. The skilled person could only have made the required selections if the first and second images were of different colours. The patent would have had to disclose, at a minimum, sufficient details of the properties of the relevant inks used to form the opacifying layers and the multi-tonal image, as well as how they should be printed in practice. The definitions in the claims were no more than an invitation to perform a research programme, the skilled person only being able to establish through trial and error whether the claimed device was achieved. However, the person skilled in the art having to find out by trial and error which, if any, compound met the parameter set out in the claim constituted an undue burden, as set out in Case Law of the Boards of Appeal of the European Patent Office, 11th edn., July 2025 (Case Law), II.C.6.7. The embodiments disclosed in the patent were not sufficient for the skilled person to carry out the claimed invention across the scope of the claim. The following figures (see page 14 of the statement of grounds of appeal) showed configurations that were modifications of the embodiment of Figure 1(d) of the patent.

- Fig. 1(d) rom the Patent	
- Simplified Fig 1(d), with opacifying layers 6a, 6b, 6d omitted to simplify Fig 1(d) and correspond with claim 1	
- Simplified Fig 1(d), with a smaller gap in the opacifying layers	
- Simplified Fig 1(d), with a larger gap in the opacifying layers	

There were serious doubts as to how such configurations would allow the multi-tonal first image to dominate the image appearance in reflection when a portion of the print working 10a was exposed and visible through the gaps of the opacifying layers 6g, 6e, 6c. There was no objective test by which the skilled person would have known if one image or the other dominated the appearance. The term was unclear. There was no definition in the patent of how to measure optical density using a particular model and configuration of a transmission densitometer. Similar to the cases considered in the Guidelines for Examination in the European Patent Office, the parameter was sufficiently ill-defined that the skilled person could not identify the technical measures necessary to solve the problem which the subject-matter of claim 1 was attempting to address. In any case, the same level of knowledge, understanding and ability should be attributed to the skilled person when it came to sufficiency of disclosure, novelty and inventive step.

(ii) *Respondent*

The ground for opposition pursuant to Article 100(b) EPC did not prejudice the maintenance of the patent as granted. The appellant's submissions regarding the term "dominates" amounted to a clarity objection and not an objection of insufficiency. The appellant's submission regarding the modification of Figure 1(d) of the patent (see above) entailed that if layers of an embodiment of the patent were re-arranged, something resulted for which it was not clear whether it fell within the scope of the claim. This was not an appropriate argument on sufficiency. Paragraphs [0027], [0028], [0046], [0048] and [0049] of the patent explained how the visual effect in reflection and transmission (see features 1.14 and 1.15) was achieved and how the structure worked. The cited passages instructed the skilled person to adjust the optical density of the layers to implement these features. The patent gave the skilled person sufficient details to carry out the claimed invention using their common general knowledge. The cited passages of the patent made clear how a print could be configured to dominate the set of opacifying layers: for the print to dominate the opacifying layers in transmission, the modulation of transmitted light that it produced must overwhelm the modulation of light produced by the opacifying layers. In other words, if the print were yet more optically dense than the opacifying layers (for example, having an optical density of 1), it would modulate the transmitted light more strongly than the opacifying layers and would consequently dominate the appearance of the medium in transmission. Decision T 2361/17 was not relevant to the issues at hand. The patent underlying the cited decision did not teach how to achieve a tactile feel with particles at the lower end of the size range

defined in the claim. In contrast, the independent claims of the patent under dispute defined a set of structural features configured to achieve a particular function, and the patent gave a complete description of how the parameters of the structural features should be controlled to fulfil this function.

(b) *Ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC*

(i) *Appellant*

The ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC prejudiced the maintenance of the patent as granted. The subject-matter of claim 1 as granted was not new in view of document D1. The following feature mapping was applied: the opacifying layers 22, 24 on Side 2 (see, for example, Figures 7a and 7b of document D1) were overlapping opacifying layers forming a first image of a frog. This image was multi-tonal because the layers had different extents. The legs of the frogs dominated the appearance in reflection (see Figure 9b of document D1). The opacifying layers on Side 1, i.e. layers 12, 14, 16 (see Figures 2b, 3b and 11b of document D1), constituted a print of a multi-tonal second image of a branch, leaves and gumnuts. The opacifying layers 12, 14, 16 could be considered a print. The square area depicted in the figures labelled "b" in document D1 (i.e. Figures 2b, 3b, etc.) could be considered a first and a second region within the meaning of claim 1 as granted. Feature 1.13 was thus disclosed by document D1. Paragraph [0033] of the patent explained that the first and the second regions may be the same and may cover substantially the entire surface of the substrate. The second image of the

branch with leaves and gumnuts was the image that was most apparent in Figure 11b of document D1 and that had the highest contrast with the background of any of the visual elements making up the appearance in transmission. It thus dominated the appearance in transmission. The subject-matter of claim 19 as granted was not new in view of document D1 for the same reasons as claim 1 as granted. Nor was the subject-matter of claims 2, 4, 5, 6, 9 to 12, 15 to 18 and 20 as granted new in view of this document.

(ii) *Respondent*

The ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC did not prejudice the maintenance of the patent as granted. Even if the appellant's feature mapping were applied, document D1 also failed to disclose feature 1.8. The first image of a frog considered by the appellant was not a multi-tonal image. The opacifying layers 12, 14, 16 could not be considered a print. Claim 1 as granted required the plurality of overlapping opacifying layers to be different and distinct from the print. Claim 1 could not be construed so broadly that it did not require an overlap of the images themselves. The skilled person would not have considered the square area of Figure 11b of document D1 to be a first or second region within the meaning of claim 1 as granted. The second image of the branch with leaves and gumnuts did not dominate the appearance in transmission. Rather, it was the faintest element. No layers were provided on the transparent substrate 10 in the areas forming the legs and the eye of the frog. Hence, these areas dominated the appearance in transmission. These arguments applied to claims 1 and 19 as granted.

(c) *Ground for opposition under Article 100(a) EPC in conjunction with Article 56 EPC*

(i) *Appellant*

The ground for opposition under Article 100(a) EPC in conjunction with Article 56 EPC prejudiced the maintenance of the patent as granted. The subject-matter of claim 1 as granted did not involve an inventive step in view of a combination of document D1 with the common general knowledge or a combination of documents D3 and D5. The objective technical problem solved in view of document D1 was to provide an alternative to the security print medium disclosed in document D1. Features 1.14 and 1.15 only related to the degree to which the visual elements were visible. It would have been a matter of design choice to modify the respective features of the security print medium of document D1. The skilled person knew about providing different layers to achieve different visual effects. The technical effect submitted by the respondent relating to a striking switch in the appearance was not achieved across the entire scope of the claim. Paragraphs [0016] and [0033] of the patent attributed a striking transition only to specific embodiments. Since features 1.14 and 1.15 merely stated results to be achieved, the objective technical problem in view of document D1 could alternatively be formulated as how to achieve features 1.14 and 1.15. The subject-matter of claim 1 as granted differed from the embodiment of Figure 6 of document D3 only in that the lower layer 24 did not provide a multi-tonal image (see feature 1.11). The objective technical problem was to provide increased security. To this end, the skilled person would have replaced the single-tone image provided by layer 24 in Figure 6 of document D3 with a multi-tonal

shadow image as disclosed in Figure 3.36 of document D5. The skilled person could have replaced the image 24 with a multi-tonal shadow image without difficulty and using ordinary skill. Document D8 was relevant because it explained how tonal variation could be achieved and demonstrated that half-toning was common general knowledge. The subject-matter of claim 19 as granted did not involve an inventive step for the same reasons as claim 1 as granted. Nor did the subject-matter of claims 2, 4, 5, 6, 9 to 12, 15 to 18 and 20 as granted involve an inventive step.

(ii) *Respondent*

The ground for opposition under Article 100(a) EPC in conjunction with Article 56 EPC did not prejudice the maintenance of the patent as granted. Regarding document D1 as the closest prior art, features 1.14 and 1.15 provided a striking switch in the appearance in the same area when the viewing condition was changed from reflection to transmission. This required a coordination of the properties of the different layers and thus made it more difficult for counterfeiters. The objective technical problem solved in view of document D1 was thus to provide a security print medium with enhanced security. To modify the device of document D1 in such a way that the image of the frog dominated the appearance in reflection, it would have been necessary to remove the security layer 28, thereby considerably reducing the complexity of the appearance. This course of action would have contravened the teaching of document D1. Claim 1 as granted included additional differentiating features over document D3, not only feature 1.11. These included features 1.14 and 1.15. The objective technical problem was to provide an enhancement of the security level. The could-would

approach had to be applied. On the assumption that the skilled person starting from document D3 would have considered that using a multi-tonal shadow image would be technically advantageous, the skilled person would have recognised that the uppermost layers 21, 24, 25 of Figure 6 of document D3 already provided a multi-tonal image. These arguments applied to claims 1 and 19 as granted.

Reasons for the Decision

1. **Ground for opposition under Article 100(b) EPC**

In the decision under appeal, the opposition division concluded that the ground for opposition pursuant to Article 100(b) EPC did not prejudice the maintenance of the patent as granted. The appellant contested this view. The issue at hand revolves around the term "dominates" in claims 1 (see features 1.14 and 1.15) and 19.

A successful objection of insufficient disclosure presupposes that there are serious doubts, substantiated by verifiable facts (see also Case Law, II.C.9.1). In *inter partes* proceedings, the burden of proof initially lies with the opponent, which must establish, on the balance of probabilities, that a skilled person reading the patent, using common general knowledge, would be unable to carry out the invention.

The appellant submitted with respect to the embodiment shown in Figures 2(a), (b) and (c) of the patent that it found it difficult to believe that a print working could overwhelm the modulation of light intensity by

the opacifying layers disclosed in the last two sentences of paragraph [0047] of the patent.

The appellant's disbelief in itself does not give rise to serious doubts. Moreover, paragraph [0027] of the patent explicitly discloses that a document designer would be able to ensure that the print dominates the appearance of the medium in transmission by controlling the optical density and coverage of the print and opacifying layers as appropriate. Paragraphs [0028], [0046], [0048] and [0049] of the patent provide further explanations regarding this optical effect and instruct the skilled person to adjust the optical density of the layers to this end. Based on these explanations, it would have been readily apparent to the skilled person that if the print was yet more optically dense than the opacifying layers (for example, having an optical density of 1), it would modulate the transmitted light more strongly than the opacifying layers and consequently dominate the appearance of the medium in transmission. Hence, with the print having a high optical density close to 1 (i.e. with very little light passing through the print), the second image would dominate the differences in optical density across the different portions of the first image.

While features 1.14 and 1.15 define functional features of the claimed security print medium, there are no serious doubts that the skilled person, using their common general knowledge, would have been able to put the claimed invention into practice. Even on the assumption that known inks differ in the parameters indicated by the appellant (translucency, colour, brightness, absorbency/optical density), it was a common task of the skilled person to select inks based on their properties and the desired function. In view

of the common general knowledge and the additional indications provided in the patent, the selection of suitable inks would not have imposed an undue burden on them. There is therefore no reason to assume that to enable the skilled person to carry out the invention, the patent would have had to disclose, at a minimum, sufficient details of the properties of the relevant inks used to form the opacifying layers and the multi-tonal image, as well as how they should be printed in practice.

The appellant submitted that the embodiments disclosed in the patent were not sufficient for the skilled person to carry out the claimed invention across the entire scope of the claim.

However, although the claims cover embodiments other than those described in the patent, the appellant's submissions do not give rise to serious doubts. In the passages cited above, the patent provides sufficient details and general instructions to enable the skilled person to put the claimed invention into practice across the entire scope of the independent claims. There is no reason to assume that the skilled person could only have made the required selections if the first and second images were of different colours, as suggested by the appellant.

The appellant referred to decision T 2361/17. In point 2 of the Reasons for the cited decision, the board considered the admittance of the main request and concluded that the patent did not provide the skilled person with enabling disclosure of how to obtain a security document with a printed security feature with a tactile feel comprising a printed layer with particles protruding by between 20 and 40 µm.

The claims of the patent as granted do not refer to a "tactile feel". Nor is this expression "analogous" to the term "dominates" in the claims of the patent as granted. The appellant also submitted that the board in decision T 2361/17 found that a broad claim was not enabled over its entire scope by a limited number of examples that bore no resemblance to numerical limits used to define the boundaries of the claimed invention. The current board could not find such a general statement in the cited decision. Moreover, in the case at hand, the claims as granted do not use numerical limits to define the claimed subject-matter. This view is not altered by the fact that a security print medium having the functions defined in features 1.14 and 1.15 may be described in terms of parameters having specific numerical values. The cited decision is therefore not relevant to the issues at hand.

On page 14 of the statement of grounds of appeal, the appellant submitted drawings which are modifications of Figure 1(d) of the patent in which the layer 6a is omitted (see above). The appellant submitted that there were serious doubts as to how such configurations would allow the multi-tonal first image to dominate the image appearance in reflection when a portion of the print working 10a was exposed and visible through the gaps of the opacifying layers 6g, 6e, 6c.

However, even if the appellant's view that these configurations did not allow the multi-tonal first image to dominate the image appearance in reflection were accepted, this would merely imply that these configurations do not meet the requirements specified in feature 1.14 and are thus not embodiments of claim 1 as granted. In this event, the configurations submitted

by the appellant would not be pertinent to whether the skilled person would have been able to carry out the claimed invention. While it is uncontested that the skilled person would have needed to make certain selections to implement the claimed invention (for example, regarding the contrast, colours, image sizes and contents), this in itself does not imply that they would have been unable to do so without undue burden.

The appellant set out that there was no objective test by which the skilled person would have known if one image or the other dominated the appearance. This term was unclear.

Even if this were correct, it would at most imply that the skilled person would not have known whether an arrangement fell within the scope of the claims. This, however, does not mean that the skilled person would have been unable to carry out the claimed invention. The definition of the "forbidden area" of a claim is not considered a matter related to Article 100(b) EPC (see also Case Law, II.C.8.2). Nor does the alleged lack of a definition in the patent of how to measure optical density using a particular model and configuration of a transmission densitometer give rise to serious doubts. The claims do not specify that an optical density is to be measured, nor do they define numerical values in this regard. Moreover, the appellant's submissions do not imply that the skilled person would not have been able to measure an optical density if they sought to.

The appellant also referred to the Guidelines for Examination in the European Patent Office. The board notes that it is not bound by the Guidelines. The appellant submitted that where the person skilled in

the art had to find out by trial and error which, if any, compound met the parameter set out in the claim, this constituted an undue burden, referring to Case Law, II.C.6.7. However, claims 1 and 19 as granted do not contain any parameter. Moreover, as set out above, the patent explicitly indicates the technical means (for example, the optical density) to be used for achieving the claimed visual effect.

The above view applies to claims 1 and 19 as granted alike.

The ground for opposition under Article 100(b) EPC therefore does not prejudice the maintenance of the patent as granted.

2. **Ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC**

In the decision under appeal, the opposition division concluded that the subject-matter of claim 1 as granted was new in view of document D1 since that document did not disclose features 1.11 to 1.15. The appellant contested this view. The respondent submitted that document D1 also failed to disclose feature 1.8.

The respondent held that the last paragraph on page 4 and the first and last sentences on page 8 of the appellant's letter dated 30 June 2025 constituted amendments to the appellant's appeal case and requested that they not be admitted into the proceedings under Article 13(2) RPBA.

The cited passages refer to the multi-tonality of different image elements of the same embodiment of

document D1 that has been under discussion since the onset of the proceedings. They represent a further development of the appellant's case and are not an amendment to its appeal case, and thus no decision on their admittance is needed.

2.1 *Feature 1.8*

The appellant submitted that opacifying layers 22, 24 on Side 2 (see, for example, Figures 7a and 7b of document D1) were overlapping opacifying layers forming a first image of a frog. However, the parties were in dispute as to whether this image was multi-tonal.

The paragraph bridging pages 13 and 14 of document D1 discloses that the partially opacifying layer 24 is applied to provide a small margin outside the outline of the window shape formed by the partially opacifying layer 22. Consequently, the margin has a different tone than the central area of the image of the frog. The resulting image of the frog is thus multi-tonal. Document D1 therefore discloses feature 1.8.

2.2 *Feature 1.11*

The appellant submitted that the opacifying layers on Side 1, i.e. layers 12, 14, 16 (see Figures 2b, 3b and 11b of document D1), constituted a print of a multi-tonal second image of a branch, leaves and gumnuts. However, the parties were in dispute as to whether the opacifying layers 12, 14, 16 could be considered a print. The respondent submitted that claim 1 as granted required the plurality of overlapping opacifying layers to be different and distinct from the print.

Document D1 discloses on page 6, lines 12 to 14, that the partially opacifying layers may be applied in a printing process (see also page 13, lines 2 and 3, of document D1). Document D1 thus discloses that the opacifying layers 12, 14, 16 (individually or in combination) constitute a print. Moreover, the print formed by opacifying layers 12, 14, 16 on Side 1 is different and distinct from the opacifying layers 22, 24 on Side 2. No additional technical features are implied by the term "print" in feature 1.11 as granted that are not disclosed in document D1.

Opacifying layers 12, 14, 16 form a second image of a branch with leaves and gumnuts. This image is multi-tonal since the leaf at the legs of the frog has a different tone than the other leaves, the gumnuts and the branch (see, for example, Figures 3a, 3b and 11b of document D11). The different tones are achieved by layer 14 extending across the area of the other leaves, the gumnuts and the branch but having a gap at the position of the leaf at the legs of the frog. Document D1 thus discloses feature 1.11.

2.3 *Feature 1.12*

The print formed by opacifying layers 12, 14, 16 is covered from the point of view of an observer on a first side of the security print medium (Side 2 in the figures of document D1) by opacifying layers 22, 24, which exhibit the multi-tonal first image of the frog (see, for example, Figure 7b of document D1). Document D1 thus discloses feature 1.12.

2.4 *Features 1.13, 1.14 and 1.15*

The appellant submitted that the square area shown in the figures labelled "b" in document D1 (i.e. Figures 2b, 3b, etc.) were a first and a second region within the meaning of claim 1 as granted. Feature 1.13 was thus disclosed by document D1.

However, even if the appellant's view were accepted, for the following reasons document D1 would not disclose features 1.14 and 1.15.

According to the appellant, the image of the frog formed by opacifying layers 22, 24 on Side 2 is a first image within the meaning of claim 1 as granted. However, when the security print medium is viewed by an observer in reflected light (see Figure 9b of document D1), most of the image of the frog is obscured by the image of the lizard formed by security layer 28. It is thus not directly and unambiguously derivable from document D1 that the largely obscured first image of the frog dominates the appearance of the square area shown in Figure 9b, as would have been required by feature 1.14.

Regarding feature 1.15, the appellant submitted that the second image of the branch with the leaves and the gumnuts was the image that was most apparent in Figure 11b of document D1 and that had the highest contrast to the background of any of the visual elements making up the appearance in transmission. It thus dominated the appearance in transmission.

However, it is not directly and unambiguously derivable from document D1 that this would indeed be the case. For example, no layers are provided on the transparent

substrate 10 in the areas forming the legs and the eye of the frog. Hence, these areas are extremely bright when viewed in transmission. The legs of the frog are furthermore part of the first image identified by the appellant. It is technically possible and not ruled out that these areas of the first image dominate the appearance in transmission instead of the second image identified by the appellant. This view is not altered by the fact that the image of the branch and the gumnuts is not visible in reflection and only becomes visible in transmission. The fact that these visual elements become visible does not imply that they dominate the appearance in transmission.

2.5 *Summary on novelty of the subject-matter of claim 1*

Document D1 does not disclose features 1.14 and 1.15. The subject-matter of claim 1 as granted is therefore new in view of this document.

2.6 *Claims 2 to 20 as granted*

The subject-matter of claim 19 is new in view of document D1 for *mutatis mutandis* the same reasons as set out above for claim 1 as granted. The subject-matter of dependent claims 2 to 18 and 20 is new in view of document D1 at least for the same reasons.

2.7 *Conclusion on novelty*

The ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC does not prejudice the maintenance of the patent as granted.

3. **Ground for opposition under Article 100(a) EPC in conjunction with Article 56 EPC**

In the decision under appeal, the opposition division concluded that the subject-matter of the claims as granted involved an inventive step in view of document D1 or D3 as the closest prior art. The appellant contested this view and submitted that the subject-matter of claim 1 as granted did not involve an inventive step in view of either a combination of document D1 with the common general knowledge or a combination of documents D3 and D5.

3.1 *Claim 1: combination of document D1 with the common general knowledge*

3.1.1 The appellant submitted that the objective technical problem solved in view of document D1 was to provide an alternative to the security print medium disclosed in document D1. Alternatively, since features 1.14 and 1.15 merely stated results to be achieved, the objective technical problem could be formulated as how to achieve features 1.14 and 1.15.

The respondent took the view that the objective technical problem solved in view of document D1 was to provide a security print medium with enhanced security.

Features 1.14 and 1.15 imply that different images, i.e. the first or the second image, dominate when the same (overlapping) area is viewed in reflection or transmission, respectively. This results in a prominent difference between the appearances of the same overlapping area under the two viewing conditions. As a result, the level of security is enhanced compared to the security print medium of document D1. This view is

unaffected by paragraphs [0016] and [0033] of the patent disclosing that a striking transition can be achieved for specific embodiments falling within the claimed scope.

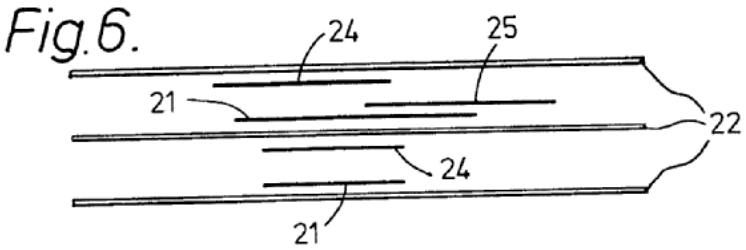
The objective technical problem formulated by the respondent is therefore correct. The appellant has not convincingly shown that the skilled person starting from document D1 and trying to solve the objective technical problem formulated by the respondent would have arrived at the claimed subject-matter in an obvious manner.

Moreover, even if the appellant's view were accepted that the objective technical problem is to provide an alternative to the security print medium disclosed in document D1, the subject-matter of claim 1 as granted would not have been rendered obvious. While the skilled person knows about providing different layers to achieve different visual effects, the appellant has not convincingly demonstrated that a security print medium having features 1.14 and 1.15 was encompassed by the common general knowledge. Moreover, to make the image of the frog dominate the appearance in reflection (see feature 1.14 and Figure 9b of document D1), it would have been necessary to remove the security layer 28, thereby considerably reducing the complexity of the appearance. However, in document D1, it is the complexity of the appearances under different viewing conditions that renders the disclosed security print medium difficult to reproduce or counterfeit. Such a modification would thus not have been obvious to the skilled person.

3.1.2 The subject-matter of claim 1 as granted was thus not rendered obvious in view of document D1 in combination with the common general knowledge.

3.2 *Claim 1: combination of documents D3 and D5*

The appellant referred to the embodiment shown in Figure 6 of document D3 (see below). It is undisputed that this embodiment does at least not disclose that the second image is multi-tonal (see feature 1.11).



The appellant took the view that the objective technical problem was to provide increased security. The skilled person would have replaced the single-tone image provided by the lower layer 24 with a multi-tonal shadow image as disclosed in Figure 3.36 of document D5. The skilled person could have replaced the image 24 with a multi-tonal shadow image without difficulty and using ordinary skill.

However, the could-would approach (see also Case Law, I.D.5) requires asking not whether the skilled person could have carried out the invention, but whether they would have done so in the expectation of solving the underlying technical problem or achieving some improvement or advantage.

Even if the skilled person was aware of multi-tonal shadow images, when applying the could-would approach,

this in itself did not imply that replacing the pattern 24 in Figure 6 of document D3 with a multi-tonal shadow image would have been obvious to the skilled person.

Moreover, even assuming that the skilled person starting from document D3 would have considered that using a multi-tonal shadow image would be technically advantageous, the skilled person would have recognised that the uppermost layers 21, 24, 25 of Figure 6 of document D3 already provide a multi-tonal shadow image. The alleged knowledge about multi-tonal shadow images would thus not have led the skilled person to modify the arrangement disclosed in document D3. Moreover, even if it did, it is not apparent why the skilled person would have replaced the pattern 24 with a further multi-tonal shadow image rather than, for example, adding a further multi-tonal shadow image to a different area of the security device.

The appellant cited document D8 to explain how tonal variation could be achieved and to demonstrate that half-toning was common general knowledge. The parties are in dispute as to whether document D8 should be admitted into the proceedings. However, since the skilled person would not have been prompted to replace the single-tone image provided by layer 24 with a multi-tonal image for the reasons stated above, whether the skilled person would have known how tonal variation or half-tones could be achieved is not pertinent. The issue is not that the skilled person did not know how to implement feature 1.11 if they intended to but that they were not prompted to consider this feature as a solution to the objective technical problem suggested by the appellant. Since document D8 is thus not

relevant to the issues at hand, there was no need to decide on its admittance.

Since feature 1.11 establishes an inventive step of the subject-matter of claim 1 as granted in view of a combination of documents D3 and D5, whether claim 1 as granted includes additional differentiating features over document D3, as submitted by the respondent, can be left unanswered.

The subject-matter of claim 1 as granted was not rendered obvious in view of a combination of documents D3 and D5.

3.3 *Claims 2 to 20 as granted*

The subject-matter of claim 19 was not rendered obvious by the cited prior art for *mutatis mutandis* the same reasons set out above for claim 1 as granted. The same holds true for dependent claims 2 to 18 and 20.

3.4 *Conclusion on inventive step*

The ground for opposition under Article 100(a) EPC in conjunction with Article 56 EPC does not prejudice the maintenance of the patent as granted.

4. **Conclusion**

As none of the grounds for opposition raised by the appellant prejudices the maintenance of the patent as granted, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

N. Schneider P. Lanz

Decision electronically authenticated