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**Datasheet for the decision
of 25 April 2017**

Case Number: T 0219/13 - 3.2.05

Application Number: 04025716.4

Publication Number: 1652687

IPC: B42D15/00, B41M3/14

Language of the proceedings: EN

Title of invention:

Security element

Patent Proprietor:

FÁBRICA NACIONAL DE MONEDA Y TIMBRE

Opponent:

Bundesdruckerei GmbH

Relevant legal provisions:

EPC 1973 Art. 100(c)
EPC Art. 123(2), 123(3)

Keyword:

Added matter (yes; all requests)



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Case Number: T 0219/13 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 25 April 2017

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Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
30 November 2012 concerning maintenance of the
European Patent No. 1652687 in amended form.

Composition of the Board:

Chairman P. Lanz
Members: O. Randl
J. Geschwind

Summary of Facts and Submissions

- I. Both the opponent and the patent proprietor filed an appeal against the decision of the opposition division on the amended form in which the European patent No. 1 652 687 could be maintained.

The opposition division had found that the grounds for opposition under Article 100(b) and (c) EPC 1973 prejudice the maintenance of the patent as granted but that the patent could be maintained in amended form according to auxiliary request 12.

- II. Appellant I (the opponent) requested that the decision under appeal be set aside and that the patent be revoked.

Appellant II (the patent proprietor) requested that the decision under appeal be set aside and the opposition be rejected (main request) or, in the alternative that the patent be maintained on the basis of one of auxiliary requests 1 to 6 filed with letter of 22 March 2017. Appellant II also requested that figures 1 to 23 as originally filed be included and that supplemental sheet 8a filed with letter of 14 July 2010 be inserted into the description.

- III. Claim 1 of the main request (patent as granted) reads as follows (feature references in brackets):

"[A] Security elements with patterns and/or characters, [B] the patterns and/or characters being defined by recesses in an opaque coating, characterized in that in that (sic) the opaque coating is a [C1] screen printed or [C2] screen metallized coating and [D1] the screen appears continuous when viewed from a distance

of about 15 cm and more or [D2] if embedded in paper, but [E] if viewed under a magnifying glass the screen can be detected and that [F] the recesses are outlined by fine [F1] continuous [F2] structures or [F3] lines."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request by the insertion of the feature "the security element being in the form of a thread, a ribbon or a strip" as well as by the deletion of features D2, F1 and F2.

Claim 1 of auxiliary request 2 differs from claim 1 of auxiliary request 1 by the insertion of the feature "forming a screen in the form of dots, points, microletters and the like" after feature C2.

Claim 1 of auxiliary request 3 differs from claim 1 of auxiliary request 1 by the replacement of feature C2 by the expression "screened partially metallized coating".

Claim 1 of auxiliary request 4 differs from claim 1 of auxiliary request 2 by the replacement of feature C2 by the expression "screened partially metallized coating".

Claim 1 of auxiliary request 5 differs from claim 1 of auxiliary request 1 by the deletion of feature C2 and the insertion of feature F1.

Claim 1 of auxiliary request 6 differs from claim 1 of auxiliary request 5 by the insertion of the feature "forming a screen in the form of dots, points, microletters and the like" after feature C1.

IV. Appellant I argued as follows:

(a) Interpretation of feature D1

The feature is not defined in the original application and has to be interpreted according to the usual meaning of its terms.

The claims should be interpreted on the basis of their wording; only if the claim language is not clear, the description and the drawings should be used in the interpretation.

Feature D1 requires the screen to appear continuous when viewed from a certain distance.

The screen, therefore, has to be apparent and without interruption, the latter feature being understood that there are no irregularities that do not belong to the screen. For instance, if the screen is made up of microletters, the onlooker just sees a continuous line when viewing them from a certain distance.

Feature E does not lead to another interpretation. If the skilled person uses a magnifying glass, he can see the details of the screen. There is no contradiction between features D1 and E.

The patent proprietor based its interpretation on document D6 (EP 0 613 786), which is not acceptable. Also, the proprietor's reference to the drawings of the original application is inadmissible, because the drawings were deleted before the patent was granted. Arguments based on document D6 or those drawings should not be taken into account.

Moreover, when the skilled person wishing to reduce the invention to practice studies the original application, he only finds the disclosure on page 4, lines 5-8, i.e. the use of lines of a certain thickness. However, structures using 30 lines per centimetre can be seen from a distance of 15 cm. Thus the interpretation according to which the screen is not seen when the security document is viewed from a distance of 15 cm is not in line with the original disclosure.

Journals or other common printed articles all have a dot screen that is visible, because of its low resolution, but the brain interprets it as something continuous.

(b) Amendments

Feature D1, which is present in the independent claims of all the requests on file, is not disclosed in the original application. Its insertion constitutes an unallowable extension under Article 123(2) EPC.

Feature E is introduced by "but", which separates this feature from the preceding features.

None of the relevant passages of the original application provide a direct and unambiguous disclosure that the screen itself appears continuous when viewed at a distance of 15 cm or more:

- The paragraph on page 2, lines 9-12 does not deal with the optical effect of the screen.
- The paragraph on page 3, lines 16-19 explains that the design of the screen (and not the screen as such) is made such that an opaque appearance is built. This does not allow to draw conclusions on a

continuous appearance of the screen. "Opaque" is to be understood as "not transparent".

- The passage extending from page 3, line 30 to page 4, line 8 does not allow to draw conclusions on the appearance of the screen when viewed at a distance of 15 cm or more.
- The paragraph on page 4, lines 12-15 deals with the recesses and not with the continuous appearance of the screen. The following paragraph refers to the opaque appearance but does not provide any details as to what the onlooker actually sees.

Feature D1 does not find support in the original claims 2 and 6 either.

Original claim 3 concerns a discontinuous screen.

V. Appellant II argued as follows:

(a) Claim interpretation

A patent must be construed by a mind willing to understand (T 190/99). The interpretation expressed in the board's preliminary opinion appears to correspond to the interpretation a skilled lawyer would make when trying to "twist" a case before a court. The fact that nobody had envisaged this interpretation before is in itself evidence for the fact that the interpretation is unnatural.

Document D6 (EP 0 613 786, a family member of which is cited as prior art in the patent) is based on similar principles (discontinuous, opaque, coating; see in particular col. 2, lines 52-53: "discontinuous metallisation ... as a screen"; col. 2, lines 13-15: "a discontinuous background metallisation or print, in

particular using a screen or the like"; col. 3, lines 15-16: "Furthermore and as aforesaid, the discontinuous screen or metallisation provided ...") This language is used to refer to a layer that is basically formed by many small dots. When referring to a family member of document D6 (i.e. Spanish application 2075787), the patent mentions a discontinuous background consisting of a printed dot section (paragraph [0006] of the patent). Also, paragraphs [0017] and [0019] of the patent refer to a discontinuous (dot) pattern, and in paragraph [0020] a "dot screen" is mentioned.

The screen to which claim 1 relates is not a screen used in the - optional - screen printing process but is provided on the security element, for instance in the form of a dot pattern. When reading the application, it is clear that the coating is discontinuous and constitutes a kind of screen.

It is apparent from the third paragraph on page 3 of the original application that the screen constitutes an opaque appearance. Something is printed on a substrate. The layer is discontinuous; for instance, it may have a dot pattern. This is what constitutes the screen; there can be no difference between the screen and the opaque coating: it is the opaque coating that forms the screen. There is no reasonable way of interpreting the subject-matter of claim 1 in another way. The screen language implies that the coating is discontinuous, but fundamentally, "screen" and "coating" refer to the same thing. This is the only sensible interpretation.

When feature D1 is looked at on its own, it is easily misunderstood. The preliminary opinion seems to consider that the screen is actually interrupted.

This interpretation is only possible if the feature is read in isolation. However, the claim continues with feature E ("but if viewed under a magnifying glass ..."). These two parts of the claim belong together: there is a screen that looks continuous when viewed from a distance 15 cm, but one can see it with a magnifying glass. The only sensible interpretation is that the screen looks continuous in the sense that one does not see its pattern, the individual dots. It is perceived as a kind of opaque coating that is continuous without interruptions, but a magnifying glass allows to see that there is a screen; the "screen character" of the coating can be detected. There is no basis for the assertion of appellant I that "more details" of the screen can be seen with a magnifying glass.

One must not consider a feature out of its context. Other features may influence its meaning. Feature E leads to reading feature D1 such that what is meant is that the screen is not perceived as a screen when looked at at a distance of 15 cm or more.

When looking at the original drawings, one finds a kind of dot screen. The idea of the patent is to outline the recesses, even in case of a fine screen, in order to improve the visual effect. There is no interruption of the screen, except for the recesses.

The argument of appellant I based on page 4, lines 5-8, of the original application uses one extreme of the range disclosed. It may well be that some embodiments will not have a continuous appearance of the screen when viewed from a distance of 15 cm. If the pattern was continuous, it would not make sense to provide a continuous outline according to features F+F1+F3.

Appellant I's arguments based on general printed matter such as journals are not to the point, because the invention concerns security papers, where one very frequently encounters continuous layers, such as continuous metal layers with recesses. The patent is about going away from this approach.

(b) Amendments

It is unclear why the examiner proposed to insert the words "the screen" in claim 1. They were unnecessary, but they actually do not make a difference in substance. Therefore, the amendment does not inadmissibly extend the subject-matter.

Article 123(2) EPC is to be interpreted strictly, but it is not about linguistic analysis. From a purely linguistic point of view, feature D1 was not in the original application. But its meaning, when considered in combination with feature E, is clearly disclosed: the coating, which is in the form of a screen, appears continuous, in the sense that the screen character is not apparent without a magnifying glass.

Reasons for the Decision

1. Applicable law

The application on which the opposed patent is based was filed on 29 October 2004. According to Article 7 of the Act revising the EPC of 29 November 2000 (OJ EPO 2007, Special edition No. 4, 217) and the Decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the EPC of 29 November 2000 (OJ EPO 2007, Special edition No. 4, 219), Article 100 EPC 1973 applies in the present case.

2. Claim interpretation

The interpretation of feature D1, according to which "the screen appears continuous when viewed from a distance of about 15 cm and more", was disputed. In particular, the parties disagreed in respect of the exact meaning of the term "screen" and its relation to the term "coating".

2.1 "coating"

As the patent does not offer a definition of the term "coating", the board interprets it according to its most general meaning, i.e. a layer of substance covering at least part of the surface of the claimed security element.

2.2 "opaque"

Claim 1 requires the coating to be "opaque". The patent does not provide a definition of the term. The Oxford English Dictionary (OED) defines "opaque" as "not transmitting light, not transparent or translucent; impenetrable to sight". This understanding appears to be compatible with the teaching of the patent.

Accordingly, the use of an opaque coating results in the patterns formed by the recesses in the coating being apparent when the security element is viewed in transmitted light.

2.3 "screen"

There is no definition of the term "screen" in the patent either. The OED offers the definition of "fine mesh, stretched in a frame, through which ink is forced when producing a picture or design using screen printing". This is the usual understanding when screen printing, which is the alternative mentioned in feature C1 of claim 1, is being considered.

The screen of claim 1 is part of the security element and cannot, therefore, be the screen of the printer. However, an interpretation by analogy appears possible. Accordingly, the screen of claim 1 could be understood to mean the sum of the surface portions of the security element covered by the screen of the printer or by the screen used for the screen metallisation.

There are, however, several statements in the context of claim 1 which raise doubts as to whether this is the meaning of "screen" in claim 1. Dependent claim 2 requires the screen to be "in the form of dots, points,

microletters and the like". Moreover, the description or the patent comprises the following paragraphs:

"[0016] This **screen will normally shape the background** of letters or symbols incorporated in the security element, which will adjust to it due to the absence of dots.

[0017] One of the advantages achieved is that the shape of the background **by means of a discontinuous pattern** instead of a continuous background makes it more difficult to be copied by optical means, therefore obtaining a higher security.

[0018] Moreover, the shaping of the background by means of a screen allows the addition of fluorescent, phosphorescent, luminescent or magnetic elements, either in the dots and/or in the space between them, either making out the dots area from the space using different colour fluorescent materials.

[0019] It is possible, by means of simple printing techniques, to obtain the **discontinuous dot pattern** with the reported standards as far as counterfeiting difficultness is concerned, while a background viewed as continuous is simulated.

[0020] The **dot screen** will show a distribution of the dots that shape it according to the following geometrical features: ..." (highlighting by the board)

According to this disclosure the screen can be a discontinuous pattern, e.g. made up of dots, which is at odds with the possible interpretation outlined above. As a consequence, it appears appropriate to adopt a broader understanding of "screen".

It is possible to interpret the term "screen" as the "screeniness" or "screen character" of the screen-printed or screen-metallized coating, i.e. the fact that the coating has an underlying structure that corresponds to a regular, two-dimensional arrangement of basic elements. This understanding makes sense in the context of claim 1, in particular considering feature E, and harmonises well with the rest of the disclosure of the patent (and of the original application) in respect of the screen.

Therefore, the board reaches the conclusion that the skilled person willing to understand claim 1 would understand the word "screen" to designate the regular, two-dimensional arrangement of basic elements that form the screen-printed or screen-metallised coating.

It should be noted that the expressions "screen", if understood in this way, and "coating" are not synonyms. The coating of claim 1 has a screen, but is not the screen. Rather, the screen corresponds to a structural property of the coating.

2.4 "continuous"

The patent does not define the adjective "continuous". Therefore, the board adopts the most common appropriate meaning of the word, which, according to the OED, is "extending in space without interruption of substance; having no interstices or breaks; having its parts in immediate connection; connected, unbroken".

The fact that the coating has a screen means that the coating necessarily is discontinuous. It may nevertheless "appear continuous" when viewed from a

certain distance, namely when the eye is not capable of resolving the screen.

- 2.5 Feature D1: "... the screen appears continuous when viewed from a distance of about 15 cm and more"

Considering all the above, the board reaches the conclusion that the skilled person would understand feature D1 to mean that the screen is:

- (a) perceived by an onlooker viewing the security element from a distance of 15 cm and more; and
- (b) it is perceived as being continuous, i.e. uninterrupted.

3. *Amendments (Article 100(c) EPC)*

During the examination proceedings, the wording of claim 1 "... the opaque coating is a screen printed or screen metallized coating and appears ..." was amended to "... the opaque coating is a screen printed or screen metallized coating and the screen appears ..." (underlining by the board).

Prior to the amendment, the opaque coating was required to appear continuous; the amended claim, however, requires the screen to appear continuous. As the terms "coating" and "screen" are not synonyms (see point 2.3 above), the amendment results in a change of the claimed subject-matter.

The question arises whether the application as filed provides an appropriate basis for the amendment.

One of the two alternatives of original claim 2 requires the coating to appear continuous when viewed

from a distance of about 15 cm and more. As already stated, this feature does not disclose that the screen of the coating appears continuous at that distance. Quite to the contrary, the fact that the coating appears continuous requires the screen not to be perceived by the onlooker. Therefore, the amendment under consideration cannot be said to be supported by original claim 2.

The only other disclosure of the opposed patent in respect of appearance of the security element when viewed at a distance of 15 cm or more, is the third paragraph on page 3 of the original application (corresponding to paragraph [0015] of the patent), which reads as follows:

"The design of the screen is to be fine enough to build an opaque appearance when viewed at a certain distance with the naked eye, e.g. from 15 cm or more, or if viewed if embedded in or applied to paper or other substrates, but if viewed under a magnifying glass the screen can be detected."

This paragraph cannot be said to disclose feature D1 because it does not deal with the continuous appearance of the screen at all. Based on its understanding of the terms "opaque" (see point 2.2 above) and "continuous" (see point 2.4), the board concludes that those terms are not synonymous. The disclosure of the paragraph under consideration clearly concerns an opaque appearance, which is different from what is aimed at in feature D1.

The board is not aware of any other disclosure of the original application that could provide support for feature D1 of claim 1.

4. *Conclusion in respect of the main request*

As the original application lacks a direct and unambiguous disclosure of feature D1, the provisions of Article 100(c) EPC 1973 prejudice the maintenance of claim 1 of the main request.

This conclusion is not based on a merely linguistic approach but on a thorough assessment of the technical content of both the subject-matter of claim 1 and the disclosure of the original application.

Consequently, the main request has to be dismissed.

5. *Auxiliary requests*

Claim 1 of each of the auxiliary requests filed by appellant II contains feature D1. As a consequence, the auxiliary requests 1 to 6 have to be dismissed for lack of compliance with the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.
3. The appeal of appellant II (patent proprietor) is dismissed.

The Registrar:

The Chairman:



D. Meyfarth

P. Lanz

Decision electronically authenticated