DECISION
of 18 July 2001

Case Number: T 1008/98 - 3.2.5

Application Number: 94500017.2

Publication Number: 0613786

IPC: B41M 3/14

Language of the proceedings: EN

Title of invention:
A process for obtaining security paper, in particular paper money

Patentee:
FABRICA NACIONAL DE MONEDA Y TIMBRE

Opponent:
GIESECKE & DEVRIENT GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 84, 123(2), (3)

Keyword:
"Admittance of an auxiliary request submitted during oral proceedings and referring to a claim containing a prima facie unclear feature (no)"
"Extension beyond the content of the application as filed (no)"
"Extension of the protection conferred (no)"
"Clarity (yes)"
"Novelty (yes)"
"Inventive step (yes)"
Case Number: T 1008/98 - 3.2.5

DECISION
of the Technical Board of Appeal 3.2.5
of 18 July 2001

Appellant: FABRICA NACIONAL DE MONEDA Y TIMBRE
(Proprietor of the patent) Jorge Juan, 106
ES-28009 Madrid (ES)

Representative: Carpintero Lopez, Francisco
HERRERO & ASOCIADOS, S.L
Alcalá, 21
ES-28014 Madrid (ES)

Respondent: GIESECKE & DEVRIENT GmbH
(Opponent) Prinzregentenstrasse 159
D-81677 München (DE)

Representative: Klunker, Schmitt-Nilson, Hirsch
Winzererstrasse 106
D-80797 München (DE)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 10 July 1998 revoking European patent No. 0 613 786 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman: W. Moser
Members: A. Burkhart
P. E. Michel
Summary of Facts and Submissions

I. The appellant (proprietor of the patent) lodged an appeal against the decision of the Opposition Division revoking the patent No. 0 613 786.

Opposition was filed against the patent as a whole and based on Article 100(a) EPC (lack of novelty and inventive step) and on Article 100(c) EPC (extension beyond the content of the application as filed).

II. The Opposition Division held that the patent as granted contained subject-matter which extended beyond the content of the application as filed and that the subject-matter of claim 1 of the patent as granted was not novel in view of the prior art documents D2: EP-A-0 279 880 and D4: WO-A-90/13877.

III. Oral proceedings before the Board of Appeal took place on 18 July 2001.

(i) The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the following documents:

(a) claims 1 to 3 submitted during oral proceedings as main request, or

(b) claims 1 to 3 submitted during oral proceedings as auxiliary request.
(ii) The respondent (opponent) requested that the appeal be dismissed.

(iii) Claim 1 according to the main request of the appellant reads as follows:

"1. A security paper containing a strip or thread (1), applicable in particular to paper money, said security strip or thread being included within the paper and said strip or thread carrying letters or drawings (2) on a coated base running along the strip or thread such that a viewer may easily recognise said letters or drawings, characterized in that

said coated base being discontinuous and consisting of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings and which renders said discontinuous coated base less strong;

and in that said security strip or thread optionally includes fluorescent elements"

Claim 1 according to the auxiliary request of the appellant differs from claim 1 according to the main request in that the feature

"said letters or drawings being formed in an area in said coated base, where no dots are present"

has been added, and in that the term "strong" has been replaced by the term "intensively opaque".
IV. The appellant argued essentially as follows:

The amendments to the claims according to the main request do not contravene Article 123(2) EPC, since they are based on the originally filed application documents, cf. claims 1 and 2; description page 1, lines 18 to 21; page 2, lines 2 to 6; page 3, line 7; page 5, line 5; the drawing and the corresponding parts of the description.

The amendment to claim 1 does not broaden the scope of claim 1 as granted, since the alternative "or dark coloured printed base" was already, at least implicitly, comprised in claim 1 as granted. Therefore the amended claims according to the main request do not contravene Article 123(3) EPC.

The expression in claim 1 "a screen which delimits the outline of the letters or drawings and which renders said discontinuous coated base less strong" is clear in the light of the description and the drawing. It means that the letters or drawings are surrounded by the screen dots of the base and that the discontinuous base has a certain degree of transparency compared to an opaque continuous base.

The subject-matter of claim 1 of the main request is novel with respect to the disclosure of document D4, since none of the security papers disclosed therein comprises a security strip carrying a coated base which is discontinuous and consists of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings.
The subject-matter of claim 1 of the main request also involves an inventive step, since neither document D4 nor document D1 (EP-A-0 319 157) suggests the gist of the invention of the patent in suit that the coated base delimiting the outline of the letters should be in the form of metallic or dark coloured printed screen dots in order to render the visible contrast between the letters and the base relatively weak.

Claim 1 according to the auxiliary request has been further amended in order to bring out more clearly that the letters or drawings are transparent spare areas within the coated base.

V. As regards the appellant's main request, the respondent argued essentially as follows:

The feature of the characterising portion of claim 1 "said coated base being discontinuous and consisting of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings" is not disclosed in the originally filed application documents, and, therefore, claim 1 contravenes Article 123(2) EPC.

The expression in the amended claim 1 "said coated base ... consisting of metallic or dark coloured printed dots" broadens the scope of protection of claim 1 as granted, which did not comprise the alternative "or dark coloured printed dots". Therefore, claim 1 also contravenes Article 123(3) EPC.

The expressions "a screen which delimits the outline of the letters or drawings" and "which renders said discontinuous coated base less strong" in amended
claim 1 are unclear.

The subject-matter of claim 1 is not novel with respect to the disclosure of document D4, in particular in view of the indications at page 7, lines 20 to 28 and at claim 9 of that document, by which it is suggested to replace the continuous opaque coating (3) of the example according to Figure 1 by a discontinuous coating in the form of a screen. Moreover, the example according to Figure 2 of document D4 also falls under the wording of claim 1.

Document D4, cf. page 7, lines 20 to 28, teaches that the coatings of the security strip can be screens and that the degree of the transparency of this coating can be varied by the dimensions and the cover density of the screen elements. Following this teaching, the person skilled in the art, aiming at a weaker contrast between the letters and the surrounding coating, would choose such a screen coating as a base for the letters in the example according to Figure 1 of document D4 and would thus arrive without any inventive activity at the subject-matter of claim 1.

The above teaching of document D4 incites the person skilled in the art also to replace the opaque metal coating of the strip disclosed in document D1, cf. Figures 1 to 8, by a discontinuous screen metal coating, thus arriving at the subject-matter of claim 1.

As regards the claims according to the appellant's auxiliary request, the respondent submitted that they should be rejected as being late filed.
Reasons for the Decision

1. **Procedural matter**

At the beginning of oral proceedings, the appellant submitted two sets of claims as main request and auxiliary request, respectively. The auxiliary request refers to an amended claim 1, which differs from claim 1 as granted and from claim 1 according to the main request by the introduction of the additional feature "said letters or drawings being formed in an area in said coated base, where no dots are present". Since the Board considers this additional feature *prima facie* to be unclear, and having regard to the fact that the auxiliary request has been submitted at a very late stage, the Board is not prepared to admit the set of claims according to the auxiliary request into the appeal proceedings.

2. **Main request of the appellant**

2.1 **Allowability of the amendments to claims 1 to 3 with respect to Article 123(2) and (3) EPC.**

Claim 1 according to the main request differs from claim 1 as granted essentially in that the term "a coated base running along the security strip or thread" has been transferred from the characterising portion to the preamble, and the term "in having a discontinuous metal coated base running along the security strip or thread ... defining a pattern which renders the said metal coated or dark-coloured printed base less strong" has been replaced by the term "said coated base being..."
discontinuous and consisting of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings and which renders said discontinuous coated base less strong".

These amendments are based on the following disclosures in the originally filed application documents:

The statement in claim 1 "a background that is metallized or printed in a dark colour" and "a discontinuous metallized background that defines a screen or the like, causing the background that is metallized or printed in a dark colour to lose intensity", the indication "screen dots" in originally filed claim 2 and the originally filed description, page 5, line 5, and in the reference to the prior art at originally filed page 1, lines 18 to 21 "layer of reflective metal, such as vacuum deposited aluminium" in connection with the statement at originally filed page 3, line 7 "using the same basic conventional idea of providing ...", from which statements, indications and references it is clearly derivable that "the security strip carries a coated base, ie a background, being a screen which renders the discontinuous coated base less strong". Moreover, the feature "a screen which delimits the outline of the letters or drawings" can be clearly derived from the originally filed drawing, from the expression in the originally filed claim 1 "letters or drawings that an observer may readily recognise with the naked eye, defined upon a background", from the reference to the prior art dealing with the creation of the letters or drawings at originally filed page 2, lines 2 to 6, together with a
statement at originally filed page 3, line 7, "using the same basic conventional idea of providing the security thread with a drawing that the public may readily recognise".

The expression "consisting of metallic or dark coloured printed dots", which defines that the discontinuous base can either consist of metallic dots, which need not necessarily be printed, or of dark coloured printed dots, is clearly derivable from the statement in the originally filed claim 1 "characterised in the obtention by any suitable means of a discontinuous metallized background that defines a screen or the like".

The replacement of the term "pattern" used in claim 1 as granted by the term "dots defining a screen" restricts the scope of protection of claim 1 as granted.

The Board cannot share the view of the respondent that the expression "consisting of metallic or dark coloured printed dots" broadens the scope of claim 1 as granted. Claim 1 as granted states that the security strip has a "discontinuous metal coated base" and contains a further reference to this base stating "said metal coated or dark coloured printed base". Since the reader of claim 1 is immediately aware that these statements in the granted claim 1 are inconsistent and, therefore, unclear, he would refer to the description of the patent in suit in order to obtain a resolution of this inconsistency. Here, under the headline "description of the invention" at column 2, lines 12 and 13 of the patent in suit, the reader finds the statement "the invention focusses on establishing a discontinuous
background metallization or print", which statement clarifies the above-mentioned discrepancy in the sense that claim 1 as granted has to be interpreted such that the "discontinuous metal coated base" referred to in line 37 of claim 1 as granted is in fact to be understood as "discontinuous metal coated or dark coloured printed base", so as to be consistent with the reference in lines 40 and 41 of claim 1 as granted "said metal coated or dark-coloured printed base".

Since, therefore, claim 1 as granted implicitly already contained the alternative "metal coated or dark colour printed base", the amendment to claim 1 does not broaden the scope of protection of claim 1 as granted.

Dependent claims 2 and 3 have been amended with respect to the granted dependent claims 2 and 3 in that the expressions "points of the pattern" and "material base" are replaced by the expressions "screen dots" and "base material". These amendments are clearly derivable from the originally filed application documents, cf. claim 2, and do not broaden the scope of the claims as granted.

Therefore, the amendments to claims 1 to 3 do not contravene Article 123(2) and (3) EPC.

2.2 Clarity of the claims

In this respect, the respondent has objected to the expressions of claim 1

(i) "a screen which delimits the outline of the letters or drawings" and
(ii) "which renders said discontinuous coated base less strong".

The above-mentioned expression (i) means that the transparent letters or drawings (2) are surrounded by the screen dots (3) of the base (see the drawing; column 1, lines 15 to 18 and lines 28 to 36; column 2, lines 10 to 13 of the patent in suit).

The above-mentioned expression (ii) means that the discontinuous coated base consisting of screen dots has a certain degree of transparency, in contrast to a continuous coated opaque base (see column 2, lines 14 to 16 and 52 to 54 of the patent in suit).

Therefore, the Board is satisfied that the claims of the main request are clear within the meaning of Article 84 EPC.

2.3 Novelty

Document D4 discloses a security paper which, in its broadest embodiment according to claim 1, includes a security strip carrying letters, wherein the security strip carries a layer of electrically conductive, transparent or partially transparent material, which is provided on the strip in such a way that the letters are not visible under reflected light but are visible under transmitted light.

Document D4 discloses in Figures 1 to 4 four specific embodiments of the subject-matter of claim 1, as follows:

In the embodiment according to Figure 1 (see also
claim 2) the security strip carries on its side opposite to the transparent or partially transparent layer (5) a further conductive layer (3) in the form of an opaque metal coating, which delimits the outline of the letters (4).

In the embodiment according to Figure 2 (see also claim 3) the security strip carries on its side opposite to the transparent or partially transparent layer (15) metallic letters (14) which act as a discontinuous electrically conductive layer.

In the embodiment according to Figure 3 the security strip carries on its side opposite to the transparent or partially transparent layer (25b) letters (24) printed in opaque colour, which letters (24) are covered by a further transparent and electrically conductive layer (25a).

In the embodiment according to Figure 4 the security strip is composed of two films (32), wherein these films (32) enclose the letters and the electrically conductive layers (35).

None of these embodiments comprises the feature "said coated base being discontinuous and consisting of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings and which renders said discontinuous coated base less strong" of the security paper of claim 1 of the main request of the appellant.

Document D4 indicates (see page 7, lines 20 to 28) that one or more of the electrically conductive layers can be in the form of a screen and that the degree of
transparency can be varied by the dimensions and the cover density of the screen elements. Therefore, this indication clearly refers to the transparent or at least partially transparent layers mentioned in claim 1 of document D4, which layers either are provided on the side of the strip opposite to the side of the strip carrying the letters (Figure 1, layer 5, or Figure 2, layer 15) or cover both the letters and the side of the strip opposite to the letters (Figure 3, layers 25a, 25b).

It is true that in claim 9 of document D4, which corresponds to the statement on page 7, lines 20 to 28, the reference numeral "3" appears for one of the screen layers. However, in the only concrete example disclosed in document D4 which contains the reference numeral "3" (see Figure 1, claim 2 and description page 9, lines 1 to 17), the layer "3" is clearly defined as being opaque, i.e. non-transparent. Since this example comprises a further conductive, at least partially transparent layer (5), the reader of claim 9 would interpret the wording of claim 9 in the sense that it is this further layer (5) in the example according to Figure 1 that could be in the form of a screen.

In any case, there is no clear and unambiguous indication in document D4 that in the embodiment of Figure 1 the conductive opaque layer (3) delimiting the outline of the letters (4) could be replaced by a non-opaque layer in the form of a screen.

Therefore, the subject-matter of claim 1 according to the main request of the appellant is novel.
2.4 Inventive step

2.4.1 Closest prior art

The closest prior art is represented by the example according to Figure 1 of document D4, which discloses a security paper containing a strip, wherein the security strip is included within the paper and carries transparent letters on a coated base running along the strip.

The inventor of the patent in suit has found that this security paper is easy to reproduce and counterfeit, since the coated opaque base on said strip forms a strong contrast to the transparent letters such that the outline of the letters is well defined and the letters are clearly visible.

2.4.2 Problem underlying the invention

Therefore, the problem to be solved by the invention of the patent in suit with respect to this prior art can be seen in providing a security paper which is more difficult to reproduce and to counterfeit.

2.4.3 Solution

The invention of the patent in suit solves the aforementioned problem in that, according to claim 1, the coated base delimiting the outline of the letters or drawings on the security strip is discontinuous and consists of metallic or dark coloured printed dots defining a screen. This solution has the effect that the base is less than 100% opaque and that the transparent letters or drawings on the security strip...
are surrounded by discrete metallic or dark coloured printed dots, and therefore, the visible contrast between the letters or drawings and the surrounding base is relatively weak, and there is no sharp outline of the letters and drawings, which renders the security paper more difficult to counterfeit.

2.4.4 The prior art documents cited by the respondent do not render this solution obvious, for the following reasons:

As already stated under point 2.3 above (chapter "Novelty"), document D4 does not disclose the feature "said coated base being discontinuous and consisting of metallic or dark coloured printed dots defining a screen which delimits the outline of the letters or drawings and which renders said discontinuous coated base less strong" of claim 1.

It is true that document D4 indicates at page 7, lines 20 to 28, and in claim 9 that one or more of the electrically conductive layers can be in the form of a screen. However, as also already stated under point 2.3 above, this indication does not refer to a layer or coating defining the outline of the letters, but to layers which either cover the letters or are positioned on the side of the strip opposite to the side carrying the letters.

No teaching can be derived from the disclosure of document D4 that the coated base delimiting the outline of the letters should be in the form of metallic or dark coloured printed screen dots in order to render the visible contrast between the letters and the base less strong.
The same applies to the disclosure of document D1, which refers to a security paper containing a strip carrying a continuous opaque metallic coating having metal-free portions in the form of letters or drawings along its length surrounded by the metallic coating, such that the visible contrast between the letters or drawings and the metallic coating is sharp (see claim 1 and Figures 1 to 8 of document D1).

2.4.5 Therefore, the subject-matter of claim 1 involves an inventive step within the meaning of Article 56 EPC.

The same applies to the subject-matters of dependent claims 2 and 3 which refer to specific embodiments of the subject-matter of claim 1.

2.5 Consequently, the main request of the appellant is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the following documents:
(a) claims 1 to 3 submitted during oral proceedings as main request;

(b) description and drawings as granted.

The Registrar: 

The Chairman: 

P. Martorana 

W. Moser