Datasheet for the decision
of 05 May 2009

Case Number: T 1316/07 - 3.2.05
Application Number: 02002901.3
Publication Number: 1334844
IPC: B42D 15/00
Language of the proceedings: EN

Title of invention:
Security device, preferably a security thread, comprising characters being visually readable as well as magnetic characteristics, and method of producing the same

Patentee:
FABRIANO SECURITIES S.R.L.

Opponents:
De La Rue International Limited
GIESECKE & DEVRIENT GmbH

Headword:
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Relevant legal provisions:
EPC Art. 56, 83, 123(2)
RPBA Art. 13(1) and (3)

Relevant legal provisions (EPC 1973):
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Keyword:
"Admissibility of late filed request (yes)"
"Amendments (allowable)"
"Sufficiency of disclosure (yes)"
"Inventive step (yes)"

Decisions cited:
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Catchword:
-
Case Number: T 1316/07 - 3.2.05

DECISION

of the Technical Board of Appeal 3.2.05

of 05 May 2009

Appellant I: FABRIANO SECURITIES S.R.L.
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Appellant II: GIESECKE & DEVRIENT GmbH
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Representative: Klunker Schmitt-Nilson Hirsch
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Other Party: De La Rue International Limited
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Composition of the Board:

Chairman: W. Zellhuber
Members: P. Michel
M. J. Vogel
Summary of Facts and Submissions

I. Appellant I (patent proprietor) and appellant II (opponent 02), lodged appeals against the interlocutory decision of the Opposition Division maintaining European patent No. 1 334 844 in amended form.

In the decision under appeal, it was held that a main request of appellant I did not satisfy the requirements of Article 123(2) EPC and Rule 57a EPC 1973, but that a first auxiliary request was allowable.

II. Oral Proceedings were held before the Board of Appeal on 5 May 2009.

Appellant I requested that the decision under appeal be set aside and that the patent in suit be maintained on the basis of the following documents:
- claims 1-11 (main request), filed during the oral proceedings of 5 May 2009
- description pages 2-5 (main request), filed during the oral proceedings of 5 May 2009
- drawings Figures 1-3, as granted.

Appellant II requested that the decision under appeal be set aside and that the European patent No. 1 334 844 be revoked in its entirety.

No requests have been received from the party as of right (opponent 01).
III. Claims 1 and 6 of the sole request of appellant I read as follows:

"1. A security device, preferably a security thread (1) for being incorporated into a document such as a banknote, comprising
   a substrate (2) preferably of a transparent polyester layer;
   a printed ink layer (3) arranged over the substrate (2) and having negative characters or scripts (3a) incorporated therein;
   a magnetic code layer (5) arranged over the printed ink layer (3) and adjacent to the negative characters or scripts (3a), wherein the magnetic code layer (5) comprises a specific signal sequence;
   characterised in that
   the signal sequence is formed by modulating the thickness of the magnetic code layer (5), and
   a surface of a support layer (4) arranged between the printed ink layer (3) and the magnetic code layer (5) has, on the side of the magnetic code layer (5), different embossed recesses in accordance with the specific signal sequence resulting in different thicknesses of the magnetic code layer (5)."

"6. A method of manufacturing a security device, preferably a security thread (1) for being incorporated into a document such as a banknote, comprising the steps of
   providing a substrate (2) preferably of a transparent polyester layer;
arranging over the substrate (2) a printed ink layer (3) having negative characters or scripts (3a) incorporated therein; and

arranging over the printed ink layer (3) a magnetic code layer (5) adjacent to the negative characters or scripts (3a),

characterised by

the steps of

printing a support layer (4) on the printed ink layer (3);

embossing different recesses into a surface of the support layer (4), which is arranged between the printed ink layer (3) and the magnetic code layer (5), on the side of the magnetic code layer (5) in accordance with a specific signal sequence resulting in different thicknesses of the magnetic code layer (5), preferably by means of roll embossing."

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

D5: EP-A-0 914 970

V. The arguments of appellant I in the written and oral proceedings can be summarised as follows:

The amended request filed during oral proceedings should be admitted into the proceedings, since the amendment constitutes merely the deletion of claims of the previous main request.
Paragraph [0038] of the patent in suit states that the magnetic ink is directly applied on the embossed surface of the support layer. The person skilled in the art does not require any further teaching.

Whilst the term "nitroacryl" used in claims 4 and 10 results from an error of translation, the person skilled in the art is nevertheless enabled to provide a suitable ink in the light of the disclosure of the patent in suit as a whole, and, in particular, paragraph [0046].

The requirements of Article 83 EPC are thus satisfied.

Neither of documents D3 and D5, regarded as the closest prior art, suggest a support layer having the characteristics specified in claims 1 and 6.

Document D12 is concerned with measures to make the security thread as thin as possible. There is thus no encouragement for the skilled person to provide an additional layer.

The subject-matter of claims 1 and 6 thus involves an inventive step.

VI.

The arguments of appellant II in the written and oral proceedings can be summarised as follows:

The amended request of appellant I should not be admitted into the proceedings since the amendment creates a new situation with which appellant II was not prepared to deal.
The patent in suit does not indicate how different embossed recesses result in different thicknesses of the magnetic code layer, as specified in claims 1 and 6. In particular, conventional printing methods are not capable of achieving this result.

The term "nitroacryl" used in claims 4 and 10 is not only unclear, but also prevents the invention from being carried out over the entire claimed range.

The requirements of Article 83 EPC are thus not satisfied.

Either document D3 or D5 can be regarded as the closest prior art. The subject-matter of claims 1 and 6 is distinguished from the disclosure of these documents by the provision of the intermediate support layer.

The patent in suit does not indicate any function or advantage resulting from the provision of such an additional layer. If the object of the invention is to overcome difficulties when embossing the printed ink layer, it would be obvious to provide such a layer in order to facilitate the embossing procedure.

The subject-matter of claims 1 and 6 thus does not involve an inventive step.

**Reasons for the Decision**

1. **Admissibility**

   The sole request of appellant I was filed during the course of the oral proceedings before the board. The
request includes a set of claims which correspond to the claims of the main request previously on file, but involves the deletion of three of the claims. In particular, independent claims 1 and 6 of the amended request are identical to claims 1 and 7 of the previous main request. The amendment is intended to overcome an objection of lack of inventive step raised against the deleted claims.

The request does not raise any issues with which the board and appellant II could not reasonably be expected to deal without adjournment of the oral proceedings, since all the claims were already present in the main request previously on file.

The board thus considers it to be appropriate to exercise their discretion under Article 13(1) and (3) RPBA so as to admit the request.

2. Amendments

The claims of the application as filed are not restricted either to the feature of the magnetic code layer being formed by printing with ink or to the feature of the signal sequence being produced by modulation of the thickness of the magnetic code layer, resulting from embossing of the underlying support layer.

The disclosure of the application as filed is not such that the skilled reader would come to the conclusion that these two features are inextricably linked.
Thus, the application as filed discloses at paragraph [0012] that a preferred feature of the invention is the provision of embossed recesses in the support layer in accordance with the desired signal sequence. This paragraph does not specify in what way the code layer is applied to the embossed surface.

The skilled reader of the application as filed would thus not assume that it was necessary to print with a magnetic ink on the embossed surface in order to obtain the magnetic code layer.

The amendments to the claims satisfy the requirements of Article 123(2) EPC.

3. Sufficiency of Disclosure

Claims 1 and 6 require that different embossed recesses result in different thicknesses of the magnetic code layer. Whilst paragraph [0038] of the patent in suit merely indicates that a magnetic ink is "directly applied" to the embossed surface of the support layer, there is no reason to suppose that the person skilled in the art would not be capable of ensuring that more ink is supplied to deeper recesses than to shallower recesses.

The application does not provide any indication of what is intended by the unclear term "nitroacryl" as used in claims 4 and 10. However, the disclosure of the patent in suit taken as a whole is sufficient to enable a person skilled in the art to select a suitable resin-based ink for the printed ink layer, the support layer and the cover layer. Thus, for example, paragraph [0046]
teaches the use of a conventional grey colour ink containing a small amount of aluminium powder.

The requirements of Article 83 EPC are thus satisfied.

4. Inventive step

4.1 Document D3 discloses a security thread for incorporation into a document such as a banknote, comprising a substrate (1); a printed ink layer (3) arranged over the substrate and having negative characters or scripts incorporated therein; a magnetic code layer (11) arranged over the printed ink layer and adjacent to the negative characters or scripts, the magnetic code layer comprising a specific signal sequence (see Figures 1 and 2 and the corresponding description).

A similar disclosure is available from document D5, which discloses a security thread for incorporation into a document such as a banknote, comprising a substrate (1), a base layer (10) arranged over the substrate and having negative characters or scripts incorporated therein, and a magnetic code layer (2) arranged over the base layer. The base layer and the magnetic code layer are formed of the same ink (document D5, paragraph [0019]). The desired signal sequence is obtained by varying the thickness of the magnetic layer (see document D5, paragraphs [0014] and [0019]).

4.2 However, whichever document is selected as representing the closest prior art, the subject-matter of claim 1 is distinguished over the disclosure of each of documents
D3 and D5 at least insofar as a support layer is arranged between the printed ink layer and the magnetic code layer whose surface has, on the side of the magnetic code layer, different embossed recesses in accordance with the specific signal sequence resulting in different thicknesses of the magnetic code layer. The provision of such a support layer can be regarded as facilitating the embossing procedure.

4.3 The prior art does not suggest the provision of such a support layer between the printed ink layer and the magnetic code layer.

Document D12 also relates to a security thread in which a magnetic code layer in the form of magnetic patches is provided directly on a substrate, either without deforming the surface of the substrate as shown in Figure 7, or occupying recesses in the substrate, as shown in Figure 8. As stated at page 12, lines 27 to 35, it is preferred to impress the magnetic ink into the thickness of the substrate in order to reduce the overall thickness of the security thread.

If this teaching is applied to the security thread of document D3, this would indicate that the magnetic material should be at least partially embedded in the ink layer (3). In the case of the security thread of document D5, this would indicate that the base and magnetic means, together with the masking elements should be at least partially embedded in the backing film (1). There is thus no inducement for the person skilled in the art to provide a support layer between the printed ink layer and the magnetic code layer whose surface has, on the side of the magnetic code layer,
different embossed recesses in accordance with the specific signal sequence resulting in different thicknesses of the magnetic code layer.

4.4 The subject-matter of claim 1 thus involves an inventive step. Claim 6 is directed to a method of manufacturing a security device having the features specified in claim 1 and specifies in particular that a support layer is printed on the printed ink layer and that different recesses are embossed into a surface of the support layer, which is arranged between the printed ink layer and the magnetic code layer, on the side of the magnetic code layer in accordance with a specific signal sequence resulting in different thicknesses of the magnetic code layer. The subject-matter of claim 6 thus involves an inventive step for the same reasons as claim 1.

4.5 Claims 2 to 5 and 7 to 11 are dependant from claims 1 and 6 respectively and relate to preferred aspects of the security device of claim 1 or the method of claim 6. The subject-matter of these claims thus also involves an inventive step.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of the following documents:
   - claims 1-11 (main request), filed during the oral proceedings of 5 May 2009
   - description pages 2-5 (main request), filed during the oral proceedings of 5 May 2009
   - drawings, Figures 1-3, as granted.

The Registrar: The Chairman:

D. Meyfarth W. Zellhuber