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Datasheet for the decision
of 25 October 2024

Case Number: T 1683/21 - 3.5.04

Application Number: 13719617.6

Publication Number: 2823635

IPC: H04N1/23, G06F17/50, B41M3/14,
                                   H04N1/00

Language of the proceedings: EN

Title of invention:
METHOD OF CHECKING PRODUCIBILITY OF A COMPOSITE SECURITY
DESIGN OF A SECURITY DOCUMENT ON A LINE OF PRODUCTION EQUIPMENT
AND DIGITAL COMPUTER ENVIRONMENT FOR IMPLEMENTING THE SAME

Applicant:
KBA-NotaSys SA

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 12(6)

Keyword:
Inventive step - main request (no)
First to third auxiliary request - should have been submitted
in first-instance proceedings (yes) - admittance (no)

Decisions cited:

G 0001/19, T 1742/12, T 1294/16

Catchword:

Case Number: T 1683/21 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 25 October 2024

Appellant:	KBA-NotaSys SA
(Applicant)	PO Box 347
	55, Avenue du Grey
	1000 Lausanne 22 (CH)

Representative:	Koenig & Bauer AG
	- Lizenzen - Patente -
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	97080 Würzburg (DE)

Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 5 July 2021 refusing European patent application No. 13719617.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	B. Le Guen
Members:	A. Seeger
	W. Ungler

Summary of Facts and Submissions

I.   The appeal is against the examining division's decision
        to refuse European patent application No. 13 719 617.6.
        As requested by the applicant, the decision under
        appeal is a decision according to the state of the file
        (EPO Form 2061) referring to a previous communication
        dated 2 June 2021 for its grounds.

II.   The prior-art documents referred to in the
        communication included the following:

        D1: US 2008/0137914 A1

        D2: US 2009/0254322 A1

        D3: DE 10 2004 045 169 A1

III.   The decision under appeal was based, inter alia, on the
        grounds that the subject-matter of claim 1 of the then
        sole request was not new (Article 54 EPC) over the
        disclosure of either document D1 or document D2 and did
        not involve an inventive step (Article 56 EPC) in view
        of the disclosure of document D3 combined with the
        disclosure of either document D1 or document D2.

IV.   The applicant (appellant) filed notice of appeal, a
        statement setting out the of grounds of appeal and
        claims of first to third auxiliary requests. The
        appellant maintained the sole request on which the
        decision under appeal was based as its main request.
        The appellant requested that the decision under appeal
        be set aside and that a European patent be granted on
        the basis of the claims of the main request or,

alternatively, on the basis of the claims of one of the first to third auxiliary requests. It indicated a basis in the application as filed for the claimed subject-matter and provided arguments to support its opinion that the claims met the requirements of Article 52 EPC in combination with Articles 54 and 56 EPC.

V.   The appellant was summoned to oral proceedings. In a communication under Article 15(1) RPBA the board gave the following preliminary opinion, inter alia.

(a) The subject-matter of claim 1 of the main request did not involve an inventive step (Article 56 EPC) in view of the disclosure of either document D1 or document D2.

(b) The subject-matter of claim 1 of the main request did not involve an inventive step within the meaning of Article 56 EPC in view of the disclosure of document D3 combined with the disclosure of either document D1 or document D2.

(c) The board was minded not to admit the auxiliary requests into the appeal proceedings under Article 12(6) RPBA.

VI.   By letter dated 25 September 2024, the appellant informed the board that it would not attend the oral proceedings.

VII.   The oral proceedings before the board took place on 25 October 2024 in the appellant's absence.

The board noted that the appellant had requested in writing that the decision under appeal be set aside and that a European patent be granted on the basis of the

claims of the sole request on which the decision under
appeal was based (main request) or, alternatively, on
the basis of the claims of one of the first to third
auxiliary requests filed with the statement of grounds
of appeal.

At the end of the oral proceedings, the chair announced
the board's decision.

VIII.   Claim 1 of the main request reads as follows:

"A method of checking producibility of a composite
security design of a security document, in particular
of a composite banknote design, on a line of production
equipment, the composite security design being the
product of a combination of multiple sets of design
features that are to be provided on a substrate as a
result of a plurality of successive production
operations carried out by means of the line of
production equipment, the method comprising the steps
of:
a) providing digital design data representative of the
composite security design of the security document;
b) modelizing, in a computer environment, the line of
production equipment by means of which the composite
security design is intended to be produced;
c) performing a computer simulation of production
results of the plurality of successive production
operations on the basis of the digital design data and
the modelized line of production equipment;
d) evaluating the computer simulated production results
and determining, on the basis of these computer
simulated production results, whether the composite
security design can be produced on the line of
production equipment."

IX.   Claim 1 of the first auxiliary request reads as follows
        (features added compared with claim 1 of the main
        request are underlined and deleted features are ~~struck
        through~~):

        "A method of checking producibility of a ~~composite
        security design of a security document, in particular
        of a~~ composite banknote design of a banknote, on a line
        of production equipment, the composite security design
        being the product of a combination of multiple sets of
        design features that are to be provided on a substrate
        as a result of a plurality of successive production
        operations carried out by means of the line of
        production equipment, the method comprising the steps
        of:
        a) providing digital design data representative of the
        composite ~~security design of the security
        document~~banknote design of the banknote;
        b) modelizing, in a computer environment, the line of
        production equipment by means of which the composite
        ~~security~~ banknote design is intended to be produced;
        c) performing a computer simulation of production
        results of the plurality of successive production
        operations on the basis of the digital design data and
        the modelized line of production equipment;
        d) evaluating the computer simulated production results
        and determining, on the basis of these computer
        simulated production results, whether the composite
        ~~security~~ banknote design can be produced on the line of
        production equipment."

X.   Claim 1 of the second auxiliary request reads as
        follows (features added compared with claim 1 of the
        main request are underlined and deleted features are
        ~~struck through~~):

"A method of checking producibility of a composite
security design of a security document, in particular
of a composite banknote design, on a line of production
equipment, the composite security design being the
product of a combination of multiple sets of design
features that are to be provided on a substrate as a
result of a plurality of successive production
operations carried out by means of the line of
production equipment, the method comprising the steps
of:
a) providing digital design data representative of the
composite security design of the security document to a
computer system;
b) modelizing, in the~~a~~ computer system~~environment~~, the
line of production equipment by means of which the
composite security design is intended to be produced;
c) running a software program in the computer system
designed to perform~~ing~~ in the computer system a
computer simulation of production results of the
plurality of successive production operations on the
basis of the digital design data and the modelized line
of production equipment~~;~~
d) and to evaluat~~ing~~ the computer simulated production
results and to determin~~eing~~, on the basis of these
computer simulated production results, whether the
composite security design can be produced on the line
of production equipment,
wherein step c) includes performing a computer
simulation of production results under the following
simulated viewing or reading conditions:
- reflected visible light involving a simulation of a
visible optical appearance of the composite security
design as observable under reflected visible light from
one side of the security document;
- transmissive visible light involving a simulation of
a visible optical appearance of the composite security

design as observable in transmission through the
security document;
- invisible illumination involving a simulation of a
visible optical appearance of the composite security
design as observable when illuminated by invisible or
near-visible light, such as ultraviolet or infrared
light; or
- machine-reading involving a simulation of a machine-
readable appearance of the composite security design as
detectable by a machine when subjected to a machine
detection technique, such as a magnetic reading or
detection in the invisible light spectrum."

XI.   Claim 1 of the third auxiliary request reads as follows
        (features added compared with claim 1 of the main
        request are underlined):

        "A method of checking producibility of a composite
        security design of a security document, in particular
        of a composite banknote design, on a line of production
        equipment, the composite security design being the
        product of a combination of multiple sets of design
        features that are to be provided on a substrate as a
        result of a plurality of successive production
        operations carried out by means of the line of
        production equipment, the method comprising the steps
        of:
        a) providing digital design data representative of the
        composite security design of the security document;
        b) modelizing, in a computer environment, the line of
        production equipment by means of which the composite
        security design is intended to be produced;
        c) performing a computer simulation of production
        results of the plurality of successive production
        operations on the basis of the digital design data and
        the modelized line of production equipment;

d) evaluating the computer simulated production results and determining, on the basis of these computer simulated production results, whether the composite security design can be produced on the line of production equipment;

e) exploiting the computer simulated production results to generate a reference model for inspection of the production quality of the composite security design during production,

further comprising the step of predefining a library of modelized production machines susceptible of composing a line of production equipment and wherein step b) includes building a modelized line of production equipment based on the said library,

wherein the plurality of successive production operations at least include an offset printing operation and an intaglio printing operation,

wherein the plurality of successive production operations further include a screen printing operation and/or a typographic printing operation,

wherein step b) includes a modelization of each relevant production machine composing the line of production equipment,

wherein step c) includes performing a computer simulation of the substrate and of features thereof, as well as of expected geometric distortions of the substrate occurring during production, and

wherein step c) includes performing a computer simulation of production results under the following simulated viewing or reading conditions:

- reflected visible light involving a simulation of a visible optical appearance of the composite security design as observable under reflected visible light from one side of the security document;

- transmissive visible light involving a simulation of a visible optical appearance of the composite security

design as observable in transmission through the
security document;
- invisible illumination involving a simulation of a
visible optical appearance of the composite security
design as observable when illuminated by invisible or
near-visible light, such as ultraviolet or infrared
light; or
- machine-reading involving a simulation of a machine-
readable appearance of the composite security design as
detectable by a machine when subjected to a machine
detection technique, such as a magnetic reading or
detection in the invisible light spectrum."

Reasons for the Decision

1.   The appeal is admissible.

2.   Main request - inventive step in view of either
        document D1 or document D2 (Article 56 EPC)

2.1   Document D1 discloses a method of checking
        producibility of a composite design of a document on a
        line of production equipment (see Figure 2: 30, 32),
        the composite design being the product of a combination
        of multiple sets of design features (see
        paragraph [0035]: "*multiple colorant (color) marking
        devices, such as CMYK devices* [...] *A print job may
        include one or more images. An image generally may
        include information in electronic form which is to be
        rendered on the print media by the image forming device
        and may include text, graphics, pictures, and the
        like.*") that are to be provided on a substrate as a
        result of a plurality of successive production
        operations carried out by means of the line of
        production equipment (see paragraph [0067]: "*a charging
        station for each of the colors to be applied ... four*

in the case of a CMYK marking device"), the method
comprising the steps of:

(a) providing digital design data representative of the
composite design of the document (see Figure 2:
"*PRINT JOB*" 12 and paragraph [0038]: "*retrieving a
print job 12 from memory*");

(b) modelizing, in a computer environment, the line of
production equipment by means of which the
composite design is intended to be produced (see
Figure 2: "*PRINTER MODEL*" 18 and paragraph [0038]:
"*The memory 44 may store models 18 from two or more
marking devices 30, 32*");

(c) performing a computer simulation of production
results of the plurality of successive production
operations on the basis of the digital design data
and the modelized line of production equipment (see
Figure 2: "*JOB SIMULATOR*" 22 and paragraph [0038]:
"*The job simulator 22 includes instructions for ...
modifying the print job based on the stored
model 18 ... to produce a merged image*");

(d) evaluating the computer simulated production
results and determining, on the basis of these
computer simulated production results, whether the
composite design can be produced on the line of
production equipment (see paragraph [0032]: "*The
print job simulator enables the user to evaluate
any print defects associated with the marking
device before sending the print job to the marking
device for printing.*"; paragraph [0079]: "*if the
customer determines, based on the print job
simulation, that the marking device 30 will provide
a satisfactory rendering of the print job 12, the*

print job may be sent to an appropriate printer 14
for rendering on the selected marking device ...
the customer may delay printing until a cause of an
image defect has been remediated, e.g., by the
printer 14 itself, the customer, or other repair
service.").

2.2   Document D2 discloses a method of checking
       producibility of a composite design of a document on a
       line of production equipment, the composite design
       being the product of a combination of multiple sets of
       design features that are to be provided on a substrate
       as a result of a plurality of successive production
       operations carried out by means of the line of
       production equipment (see paragraph [0041]: "*the press*
       typically comprises several printing groups, i.e., a
       printing group for each elementary color, black, cyan,
       magenta, and yellow"), the method comprising the steps
       of:

       (a) providing digital design data representative of the
           composite design of the document (see Figure 3:
           "*Structural data for the product*" 10 and
           paragraph [0051]: "*receiving 10 of data ...*
           concerning the structure of the sheet product");

       (b) modelizing, in a computer environment, the line of
           production equipment by means of which the
           composite design is intended to be produced (see
           paragraph [0042]: "*functional modeling of the*
           press" and paragraph [0044]: "*Unit 3 models the*
           folding machine");

       (c) performing a computer simulation of production
           results of the plurality of successive production
           operations on the basis of the digital design data

and the modelized line of production equipment (see paragraph [0047]: "*press simulator ... image simulator ... 3D simulator*", paragraph [0048]: "*three-dimensional modeling of an object for simulation and rendering of objects in three dimensions*" and paragraph [0071]: "*An image and display 36 on the monitor of the simulated product are formed*");

(d) evaluating the computer simulated production results and determining, on the basis of these computer simulated production results, whether the composite security design can be produced on the line of production equipment (see paragraph [0048]: "*display of the finished product and its faults in three dimensions in order to facilitate the perception of the structure of the product by the user*" and paragraph [0068]: "*The face images include printing faults calculated by the 'image simulator', and are generated for each impression of the product*").

2.3   As indicated by the examining division in point 1.1 of its communication dated 2 June 2021, the terms "*in particular of a composition banknote design*" do not limit the claimed subject-matter. This was not contested by the appellant.

Therefore, the subject-matter of claim 1 differs from the disclosure of either document D1 or document D2 in that the former specifies that the composite design of the document is a composite "security" design of a "security" document.

2.4   According to point 1 of its communication dated 2 June 2021, the examining division considered that the

term "*security*" was so vague in nature that it did not
need to be taken into account in the assessment of
novelty.

2.5   The board agrees with the examining division (see the
       communication dated 2 June 2021, point 2, second
       paragraph) that the term "*security document*" is broad
       and encompasses documents that can be produced by a
       conventional multi-colour printer. To the board,
       markings on such documents may include a serial number,
       may be encrypted, or may contain a digital signature.
       These markings can be used in security applications.
       Therefore, a document bearing them would be considered
       a "*security document*" by the person skilled in the art.
       A practical example is a boarding pass which provides
       access to a secured area and can be printed on a
       conventional printer.

2.6   Documents D1 and D2 disclose printing text and images
       (see D1, Figure 3 and D2, Figure 15). The difference
       from text and images used in a security application is
       merely the cognitive content of such text and images.
       Indeed, markings of the types mentioned in the previous
       point have no bearing on the function or structure of
       the production line and can thus be considered of a
       cognitive nature. According to paragraph 76 of G 1/19
       (OJ EPO 2021, A77) "*[i]t is generally recognised in the
       case law of the boards of appeal that the cognitive
       content of data is not technical in nature*". Therefore,
       the limitation implied by the term "security" is not
       technical in nature.

2.7   It is established case law that non-technical features,
       to the extent that they do not interact with the
       technical subject-matter of the claim for solving a
       technical problem, i.e. non-technical features "as

such", do not provide a technical contribution to the prior art and are thus ignored in assessing inventive step (see G 1/19, point 30, principle (F)).

2.8   In view of the above, the board is of the opinion that the distinguishing feature identified in point 2.3 above is to be ignored in assessing inventive step.

2.9   The appellant argued that the person skilled in the art would have understood the terms "*security design*" and "*security document*" to exclude documents producible by a conventional multi-colour printer. Instead, the person skilled in the art would have understood these terms to only refer to documents producible by special and complex production processes which required government authorisation.

In particular, the appellant referred to:
-    IPC class B42D25/00,
-    WO 2009/106107 A1, pages 1 and 2,
-    https://de.wikipedia.org/wiki/Sicherheitsmerkmal, and
-    document D3, second paragraph (see statement of grounds of appeal, page 3).

The board is not convinced by these arguments for the following reasons.

(a) The heading of the cited IPC class B42D25/00 reads: "*Information-bearing cards or sheet-like structures characterised by identification or security features; Manufacture thereof*". This class includes identity cards, passports and bank notes as well as security features using special materials or inks; however, the same class also includes entrance cards (B42D25/26) and lots (B42D25/27) as well as

security features such as photographs (B42D25/309) and signatures (B42D25/318). The board is thus not convinced that the person skilled in the art would have understood that, for example, an entrance card containing a photograph and a signature could not be produced by a conventional multi-colour printer.

(b) The published international patent application WO 2009/106107 A1 states on page 1, third paragraph: "*Wert- und/oder Sicherheitsdokumente umfassen Reisepässe, Personalausweise, Identifikationskarten, Zugangsberechtigungskarten, Kreditkarten, Geldkarten, Telefonkarten, Banknoten, Führerscheine usw.*". Hence, this patent application sets out examples of security documents ("*umfassen*"); however, it neither states that the set of examples provided is complete ("*usw.*") nor does it give a general definition of the term "security document".

(c) The web page https://de.wikipedia.org/wiki/ Sicherheitsmerkmal provides examples of security features. Most of them do require special printing facilities, but one example of a security feature is the numbering of each piece for individual identification and traceability. The person skilled in the art would have understood that such numbering could be achieved by a conventional printer.

(d) Document D3, second paragraph does not refer to a "*security document*" in general but to a special class of them, namely "*Wertpapiere, z.B. Banknoten*". In any case, referring to a single patent document cannot be regarded as a proof of common general knowledge or of the general

understanding of a certain term by the person
skilled in the art.

2.10   The appellant further argued that both document D1 and
document D2 had a purpose other than the present
application. Document D1 did not relate to "*checking
producibility*", but to detecting image non-uniformity
due to printer defects. Document D2 related to training
a user in the use of press for printing products, which
had nothing to do with checking producibility of a
composite security design of a security document (see
statement of grounds of appeal, page 4, first and
second full paragraphs).

The board is not convinced by these arguments for the
following reasons.

The board agrees with the examining division that the
concept of "checking producibility", as used in the
application, is broad and includes the identification
of "limitations" or bottlenecks in the line of
production equipment (see page 3 of the communication
dated 2 June 2021). The board also agrees with the
examining division that the step of "checking
producibility", which is understood to include step d),
encompasses a mental act by the operator (*ibid.*).

Both document D1 and document D2 simulate an output of
a printing facility.

Document D1 discloses an evaluation, by the user, of
any print defects associated with the marking device
(see paragraphs [0032] and [0079]). Print defects
associated with the marking device are representative
of limitations or bottlenecks in the marking device. In
any case, document D1 also discloses that, on the basis

of their evaluation, the user may decide to delay
printing until a cause of an image defect has been
remedied (*ibid.*). This decision implies evaluating
whether the print job can be produced. Therefore, the
board finds that the evaluation disclosed in
document D1 anticipates the step of checking
producibility specified in claim 1, including step d).

Document D2 discloses an image simulator calculating
printing faults (see paragraph [0068]). Printing faults
are representative of limitations or bottlenecks in the
press. Therefore, the board is of the view that the
calculation disclosed in document D2 anticipates the
step of checking producibility specified in claim 1,
including step d).

2.11   The appellant argued (see statement of grounds of
        appeal, the paragraph bridging pages 5 and 6) that the
        determination of whether a composite security design
        could be produced was carried out by a computer system.
        The role of the operator was restricted to controlling
        the production on the basis of these determinations
        carried out by the computer system. In this regard the
        appellant referred to the following passages of the
        description:
        (a) page 13, lines 22 to 29
        (b) page 18, lines 23 to 25
        (c) page 19, lines 1 to 6
        (d) page 19, lines 13 to 18
        (e) page 20, lines 4 to 7
        (f) page 24, lines 7 to 9

        The board is not convinced by these arguments for the
        following reasons.

First, claim 1 does not contain any features that would restrict the evaluation specified in step d) to an evaluation carried out by a machine.

Second, page 13, lines 22 to 29 of the description states: "*the computer simulation 30 allows for a direct feedback to be given to the operator as regards the expected producibility of the particular composite security design on the desired line of production*". The board is not convinced that the term "*direct feedback*" must necessarily be understood such that the computer simulation provides a <u>decision</u> as to whether the composite security design is producible. The term "*direct feedback*" may equally be understood such that, for example, an image of the simulated production result is shown to the operator. It is then up to the operator to interpret that image of the simulated production result to determine whether the composite security design can be produced on the line of production equipment. This understanding is compatible with the passages of the description on pages 18, 19 and 20 cited by the appellant, which just explain what is simulated and how. Furthermore, this understanding is not contradicted by the description on page 24, lines 7 to 9 stating: "*the computer simulated results could further be exploited for the purpose of automatically setting up production machines of the line of production equipment*". The expression "*could be further exploited*" includes any manner in which the simulation results could be exploited, for example by using image processing of simulated production results to extract parameters to set up production equipment.

Third, both document D1 (see paragraph [0076]: "*the job simulator 22 may select an appropriate region of the image to be displayed, the region being one in which a*

defect is identified") and document D2 (see
paragraph [0068]: "*printing faults calculated by the
'image simulator'*") disclose an identification, <u>by a
computer system,</u> of limitations or bottlenecks in the
line of production equipment.

2.12   In view of the above, the board finds that the subject-
        matter of claim 1 does not involve an inventive step
        (Article 56 EPC) in view of the disclosure of either
        document D1 or document D2.

3.   Main request - inventive step in view of document D3
        (Article 56 EPC)

3.1   Document D3 as "closest prior art"

3.1.1   Claim 1 specifies a "*method of checking producibility
        of a composite security design of a security document*".

3.1.2   The examining division used document D3 as a starting
        point for the assessment of inventive step of the
        claimed subject-matter (see the communication dated
        2 June 2021, point 2.1).

        The title of document D3 reads "*Verfahren für Entwurf
        und Prüfung von Wertpapieren*".

3.1.3   The appellant did not contest that document D3 related
        to a design method of value papers, which were a
        particular example of security documents (see statement
        of grounds of appeal, paragraph bridging pages 3
        and 4); however, the appellant argued that the method
        in document D3 did not relate to checking the
        producibility of value papers, but to checking whether
        the design of the value papers was suitable for

automatic testing (see statement of grounds of appeal, page 4, last paragraph).

3.1.4   Whether document D3 relates to checking producibility of value papers depends on how "checking producibility" is understood. Paragraph [0033] of document D3 reads: "*Um die bei realen Wertpapieren auftretenden Effekte wie Drucktoleranzen ... berücksichtigen zu können, ist es möglich, die CAD-Daten bzw. die daraus umgewandelten Referenzdaten bereits in der Entwurfseinrichtung 50 durch Simulation entsprechend zu verändern*". This means that a check is performed as to whether a value paper can be automatically tested (see paragraph [0018]: "*Die dabei erzeugten CAD-Daten des Designs des Wertpapiers werden anschließend darauf geprüft, ob die im Design des Wertpapiers enthaltenen Merkmale für eine spätere automatische Prüfung geeignet sind*") under the tolerances created by a production line. In the negative, a flaw in the production line may be considered to have been identified. This anticipates "checking producibility" of the value paper (see the board's interpretation of this feature in point 2.10 above).

3.1.5   The previous point notwithstanding, the board in any case endorses the opinion that a document with a different purpose can be selected as a starting point in an inventive-step analysis (see T 1742/12, points 9 and 10 of the Reasons; T 1294/16, point 5 of the Reasons). The technical field of document D3 is closely related to the technical field of the invention. For these reasons alone, the board finds that document D3 is a possible starting point for the assessment of inventive step of the claimed subject-matter.

3.2   Document D3 discloses a method of checking a composite
       security design of a security document, the composite
       security design (see paragraph [0017]: "*eine
       Entwurfseinrichtung ... mit deren Hilfe Designs von
       Wertpapieren entworfen werden können. Insbesondere
       ermöglicht es der Einsatz von CAD Merkmale, die für die
       Gestaltung des Designs der Wertpapiere verwendet
       werden, zu entwerfen bzw. innerhalb CAD gespeicherte,
       vorgefertigte Merkmale zu verwenden*") being the product
       of a combination of multiple sets of design features
       that are to be provided on a substrate as a result of a
       plurality of successive production operations carried
       out by means of the line of production equipment (see
       paragraph [0017]: "*Unter Merkmalen sollen dabei
       insbesondere die Fälschungssicherheit steigernde
       Sicherheitselemente wie Wasserzeichen,
       Sicherheitsfäden, Hologramme, Kinegramme usw. aber auch
       der für den Druck von Wertpapieren verwendete
       Spezialdruck verstanden werden*"), the method comprising
       the steps of:

       -    providing digital design data representative of the
            composite security design of the security document
            (see paragraph [0033]: "*ist es möglich, die CAD-
            Daten ... bereits in der Entwurfseinrichtung 50
            durch Simulation entsprechend zu verändern*",
            implying that the CAD data representative of the
            composite security design were provided);

       -    performing a computer simulation of production
            results of a plurality of successive production
            operations of a line of production equipment (see
            paragraph [0033]);

       -    evaluating the computer simulated production
            results (see paragraph [0033]).

3.3   Document D3 does not disclose steps b) and c) as
specified in claim 1 as well as a step of checking
producibility <u>which includes</u> step d) as specified in
claim 1.

3.4   Irrespective of whether the distinguishing features
contribute to the technical character of the invention
in light of G1/19, the board notes that any production
line is bound to present limitations and bottlenecks.
Therefore, the person skilled in the art would have
wanted to identify the existence of limitations in the
equipment that produces the security documents
("*Wertpapiere*") disclosed in document D3. Moreover, the
person skilled in the art would have realised that
similar solutions can be applied for identifying
limitations in the equipment producing the security
documents disclosed in document D3 as for identifying
limitations in conventional printers. Therefore, the
board agrees with the examining division that the
person skilled in the art would have turned to
documents D1 and D2 (see page 7 of the communication
dated 2 June 2021, last paragraph). The distinguishing
features would have been obvious in view of either of
these documents (see point 2. above).

3.5   In view of the above, the board finds that the subject-
matter of claim 1 does not involve an inventive step
within the meaning of Article 56 EPC in view of the
disclosure of document D3 combined with the disclosure
of either document D1 or document D2.

4.   First auxiliary request - admittance
(Article 12(6) RPBA)

4.1   Under Article 12(6) RPBA "[t]*he board shall not admit
       requests ... which should have been submitted ... in
       the proceedings leading to the decision under appeal,
       unless the circumstances of the appeal case justify
       their admittance*".

4.2   Claim 1 of the first auxiliary request contains the
       feature of checking producibility of a "*composite
       banknote design of a banknote*".

       Compared with claim 1 of the main request, the more
       general term "*security document*" is thus restricted to
       a "*banknote*".

4.3   The board notes that the meaning of "*security document*"
       and whether such a document could be printed on a
       conventional multi-colour printer were major points of
       discussion during the first-instance proceedings.

       This is evident from:
       -   the examining division's communication dated
           30 October 2014, page 3, first paragraph,
       -   the appellant's letter dated 15 May 2015,
           point II.1.1,
       -   the examining division's communication dated
           10 July 2017, page 2, first paragraph,
       -   the appellant's letter dated 9 November 2017,
           point I.1.1 and
       -   the examining division's communication dated
           29 May 2019, page 1, point 2.

4.4   Therefore, a claim further restricting the "*security
       document*" to a "*banknote*" should have been filed during
       the first-instance proceedings.

Furthermore, the board cannot see any circumstances in the appeal case which would justify the admittance of such a request.

4.5   In view of the above, the board exercised its discretion under Article 12(6) RPBA by not admitting the first auxiliary request into the appeal proceedings.

5.   Second auxiliary request - admittance (Article 12(6) RPBA)

5.1   Compared with claim 1 of the main request, claim 1 of the second auxiliary request further specifies, inter alia, that step d) is performed by running a software program in the computer system.

5.2   This amendment seems to address the examining division's view that step d) encompasses a mental act; however, if the appellant wanted to exclude an interpretation of step d) that encompassed a mental act, it should have maintained its request for oral proceedings before the examining division and filed a claim including this amendment.

5.3   For this reason, the board exercised its discretion under Article 12(6) RPBA by not admitting the second auxiliary request into the appeal proceedings.

6.   Third auxiliary request - admittance (Article 12(6) RPBA)

6.1   Claim 1 of the third auxiliary request combines the features of claims 1 and 8 to 14 of the main request (see statement of grounds of appeal, page 8, first full paragraph).

Claim 1 of the third auxiliary request specifies, inter alia, that the plurality of successive production operations at least include an offset printing operation and an intaglio printing operation, and further include a screen printing operation and/or a typographic printing operation.

6.2   This amendment makes it immediately apparent that the line of production equipment cannot be a conventional multi-colour printer.

6.3   However, whether the line of production equipment could be a conventional multi-colour printer had been a major issue in the first-instance proceedings (see point 4.3 above).

6.4   Therefore, the board is of the opinion that a request restricting the line of production equipment to include special printing techniques should have been filed during the first-instance proceedings.

        Furthermore, the board cannot see any circumstances in the appeal case which would justify the admittance of such a request.

6.5   In view of the above, the board exercised its discretion under Article 12(6) RPBA by not admitting the third auxiliary request into the appeal proceedings.

7.   Conclusion

        The main request is not allowable because the subject-matter of claim 1 of this request does not involve an inventive step within the meaning of Article 56 EPC.

The first to third auxiliary requests were not admitted
into the appeal proceedings under Article 12(6) RPBA.
Since none of the appellant's requests is allowable,
the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Boelicke   B. Le Guen

Decision electronically authenticated