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**Datasheet for the decision
of 9 May 2023**

Case Number: T 0620/19 - 3.4.01

Application Number: 11704834.8

Publication Number: 2545489

IPC: G06K1/12, G06K19/06, G06K19/08

Language of the proceedings: EN

Title of invention:
IMPROVEMENTS IN SECURITY SUBSTRATES FOR SECURITY DOCUMENTS

Patent Proprietor:
De La Rue International Limited

Opponent:
Giesecke+Devrient Currency Technology GmbH

Headword:
Security Substrates / De La Rue International Limited

Relevant legal provisions:
EPC Art. 54(2)
RPBA Art. 12(4)
RPBA 2020 Art. 13, 25(2)

Keyword:

Main request, Auxiliary request 4 - Novelty - (no)
Auxiliary requests 1, 2, 3 and 5 - taken into account (no)
Auxiliary requests 6 to 10 - pending (no)

Catchword:

A characteristic employed in the prior art concerned was introduced to the claims as a limitation. This amendment was not suitable for addressing the fundamental novelty issue in the case. In that sense, the amended claim set (auxiliary request 5) did not "[relate] to the case under appeal" and was not taken into account (Article 12(4) RPBA 2007).



Beschwerdekammern

Boards of Appeal

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Case Number: T 0620/19 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 9 May 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
21 December 2018 concerning maintenance of the
European Patent No. 2545489 in amended form.**

Composition of the Board:

Chairman P. Scriven
Members: A. Medeiros Gaspar
C. Almberg

Summary of Facts and Submissions

- I. The patent was opposed on grounds under Articles 100(a), 100(b), and 100(c) EPC.

- II. In the notice of opposition, documents D1 (WO2004/056582 A2), D6 (US 5984191), and D7 (WO2005/108106 A1) were, inter alia, cited as evidence that claim 1 of the patent was not new.

- III. The Opposition Division decided that the patent could be maintained in amended form according the proprietor's then sixth auxiliary request.

- IV. Both the opponent and the proprietor appealed the Opposition Division's decision.

- V. During appeal proceedings, the proprietor filed a number of new requests. The opponent filed further documents and made arguments that, by the end of proceedings, were no longer relevant. The condition under which some of the proprietor's requests were to be considered was later changed, some were renumbered and some were withdrawn. It is not necessary to set out in detail the whole history of these submissions. The following summary sets out only the facts and submissions that are relevant to the situation at the end of proceedings.

- VI. The Opposition Division came to the following conclusions, of relevance to the appeal:
- (a) claim 1 of the patent did not extend beyond the content of the original application and that the invention it defined was sufficiently disclosed;
 - (b) claim 1 of the patent lacked novelty in view of document D1;
 - (c) neither D6 nor D7 prejudiced the patentability of the sixth auxiliary request.

- VII. On appeal, the opponent
- disputed conclusions (a) and (c) ;
 - insisted that claim 1 of the patent, as well as claim 1 of the request found allowable by the Opposition Division, lacked novelty in view of any of D1, D6, and D7;
 - raised new novelty and inventive step objections based on new documents D15 (EP1714795 A1), D16 (EP1719637 A2), D17 (EP1857295 A2), D18 (EP1500521 A2) and D19 (GB10956286).

- VIII. On appeal, the proprietor:
- disputed conclusion (b);
 - sought to rebut the further attacks against the patent and the request found allowable by the Opposition Division;
 - filed ten further auxiliary requests, seven of which new and for consideration if the Board considered the request found allowable to lack novelty and/or inventive step over D6, D7 or, if admitted, D15 and D16.

- IX. Both parties argued against consideration of the other's new submissions, and both conditionally requested oral proceedings.
- X. Subsequent to the communication expressing the Board's preliminary view, the proprietor withdrew some auxiliary requests, re-ordered the remainder, and made some of the latter conditional on one or more of of D15 to D19 being admitted into the proceedings.
- XI. During oral proceedings, the proprietor filed two new claim requests and once more reordered the remainder, removing the condition from one of them.
- XII. At the end of oral proceedings, the opponent confirmed their requests to be that the appealed decision be set aside and that the patent be revoked.
- XIII. The proprietor confirmed their final requests to be that the appealed decision be set aside and that the opposition be rejected (main request), or that the patent be maintained in amended form on the basis of one of the following auxiliary requests:
- auxiliary requests 1 and 2, filed during the oral proceedings before the Board;
 - auxiliary request 3, filed with the reply to the opponent's statement of grounds of appeal (then as auxiliary request 5 - paragraph VIII, above); this request was made conditional on the consideration of D15 to D19, in response to the Board's preliminary opinion, (paragraph X), but the

condition was then removed during oral proceedings before the Board (paragraph XI);

- auxiliary request 4, the request that was found allowable by the Opposition Division, and re-filed with the reply to the opponent's statement of grounds of appeal (then as auxiliary request 4);
- auxiliary requests 5, filed with the reply to the opponent's statement of grounds of appeal (then as auxiliary request 7);
- auxiliary requests 6 to 10, filed with the reply to the opponent's statement of grounds of appeal (then as auxiliary requests 6 and 8 to 11, respectively); consideration of these requests is only requested, if any of D15 to D19 is admitted into the proceedings.

XIV. Claim 1 of the patent (main request) reads:

A security substrate (10) having at least two sets (11, 12) of regions having a machine detectable characteristic, in which only a first set (11) of regions is applied to a first surface (16) of the substrate (10) and a second set (12) of regions is applied to a second opposing surface (17) of the substrate (10), wherein both of the at least two sets (11, 12) of regions are required to be present to form a machine readable code characterized in that the relationship between the sets (11, 12) of regions forming the machine readable code cannot be detected visually.

XV. Claim 1 of auxiliary request 1 adds to claim 1 of the patent:

[... visually], wherein the machine detectable characteristic is magnetism, fluorescence, luminescence or conductivity, further wherein the code is a spatial code.

XVI. Claim 1 of auxiliary request 2 adds to claim 1 of the patent:

[... visually], wherein the machine detectable characteristic is fluorescence, luminescence or conductivity, further wherein the code is a spatial code.

XVII. Claim 1 of auxiliary request 3 adds to claim 1 of auxiliary request 1:

[... spatial code] arranged to be read by measuring relative distances between the regions in the at least two sets (11,12).

XVIII. Claim 1 of auxiliary request 4 adds to claim 1 of the patent:

[...visually], wherein the machine detectable characteristic is magnetism, fluorescence, luminescence or conductivity.

XIX. Claim 1 of auxiliary request 5 adds to claim 1 of the patent:

[...visually], wherein the machine detectable characteristic is magnetism or conductivity.

Reasons for the Decision

The invention as described in the patent

1. The invention relates to security substrates for security documents, such as banknotes, that are vulnerable to counterfeiting (patent: paragraphs [0001] and [0002]).
2. Normally, banknotes comprise security features, applied to a surface, that form a machine readable security code, which is used to validate the notes. Examples of such features include magnetic inks, fluorescent pigments, and conductive metallic features located in one or more regions of the banknote, either in the substrate, in the printing, or as an applied feature (paragraph [0006]).
3. Some counterfeiters have started to produce what are called "split counterfeits", obtained by splitting genuine banknotes in two down the plane of the paper and creating notes comprising a genuine front and a counterfeit back, or vice versa (paragraph [0008]).

4. According to the patent, an improved security substrate is provided, comprising two sets of security features applied on opposing surfaces of the substrate, in which a first set of regions is applied to a first surface of the substrate and a second set of regions is applied to the second, opposing surface. These two sets of features, together, form a machine readable code (paragraph [0010]). As neither of the surfaces of the substrate carries the complete code, split counterfeits are rendered ineffective (paragraph [0015]).

Main request: lack of novelty of claim 1 vis a vis D6

5. Document D6 discloses transaction cards comprising two magnetic stripes which, in the embodiments of figures 7-9, are applied to opposing faces of the card's substrate (D6: abstract, column 4 lines 46 to 54).
6. Each of the stripes carries, magnetically encrypted, standard data that the usual transaction card is encrypted with. For example, the first stripe may be for business expenses and the second for personal expenditure (D6: column 3 line 66 to column 4 line 4; column 4, lines 11 to 14).
7. With regard to this disclosure, the points of dispute are:
 - (a) whether or not the two magnetic stripes disclosed in D6 form, together, a machine readable code in the sense of the claim; and, if so,
 - (b) whether or not the *relationship between the sets of regions forming the machine readable code* can be detected visually.

8. The Opposition Division reasoned that the two individual machine readable codes, formed by each individual stripe, did not form (together) a (single/further) machine readable code, as defined in the claim. Instead the result of bringing the two codes together would still be two machine readable codes, one encoded in each stripe.
9. However, as correctly argued by the opponent, the two codes formed on opposing surfaces of the substrate of D6 can be seen as forming, together, a (further) code, one that is defined by the ensemble of the two individual codes, one on each side of the card.
10. In fact, claim 1 encompasses embodiments in which, the sets of regions on opposing surfaces have different machine readable characteristics (Patent: claim 4). For such embodiments, the machine readable code formed by the different sets of regions can only be understood to be a code defined as the ensemble of the two individual codes.
11. The proprietor argued that the characterizing portion of claim 1 required that the machine readable code be the result of a *relationship* between the sets of regions and that D6 did not disclose any relationship between the two codes forming the ensemble. To the contrary, D6 taught the use of different magnetic stripes for the purpose of separating the information encoded into either one or the other.
12. The feature referred to by the proprietor reads in full: *the relationship between the sets of regions forming the machine readable code cannot be detected visually.*

13. This feature does not necessarily imply any limitation on the machine readable code, other than that it be formed by the two sets of regions. It rather defines the relationship between the sets of regions as not visually detectable.
14. This relationship is not further defined in the claim, even though the use of the definite article does suggest a previously defined relationship.
15. Furthermore, the relationship must be structural or spatial, as other types of relationship, such as functional relationships, would, by definition, not be visually detectable.
16. Hence, even if not necessarily so restricted by the formulation in the claim, this relationship encompasses, at least, the spatial relationship between the sets of *regions having a machine readable characteristic* defined in the claim, as argued by the proprietor.
17. However, as correctly argued by the opponent, the magnetic encoding of information, such as the one disclosed in D6, is one that is achieved by employing spatially related regions of different magnetization. Since these regions of different magnetization are not visually detectable, the spatial relationship between them is also not visually detectable.
18. In fact, it is the spatial relationship between the regions of different magnetization within the sets of regions, typically the distance between regions, that is read when using a magnetic stripe, such as those disclosed in D6.

19. Consequently, even when following the restrictive interpretation of the relationship between the sets of regions defined in the claim, the security substrate of D6 also comprises the feature that *the relationship between the sets of regions forming the machine readable code cannot be detected visually.*
20. The facts that D6 teaches the provision of different magnetic stripes for the purpose of separating the information encoded into either one or the other, and that it is not concerned with avoiding counterfeiting, are irrelevant in the context of a novelty assessment.
21. What is relevant is that D6 discloses a security substrate having two sets of regions having a machine readable characteristic, in this case magnetism, applied to opposing surfaces of the substrate, and that the relationship between the regions within the sets of regions cannot be detected visually.
22. Therefore, claim 1 of the patent lacks novelty in view of D6 (Article 54(2) EPC).

Auxiliary requests 1 and 2: consideration

23. Auxiliary requests 1 and 2 were filed during the oral proceedings before the Board, i.e. well after the notification of the summons. Their consideration is subject to the discretion of the Board under Article 13(2) RPBA 2020.
24. For such submissions to be taken into account, Article 13(2) RPBA 2020 requires, in principle, that exceptional circumstances be present and that these

have been justified with cogent reasons by the party concerned.

25. The proprietor argued that the conclusion that claim 1 of the main request lacked novelty having regard to D6 had come as a surprise, since the preliminary opinion of the Board was positive in that regard. Consequently, requests filed in reaction to this turn of events should be considered.
26. However, the Board's preliminary opinion was not wholly positive in this regard, but instead expressed some doubts (see, in particular, paragraphs 35 to 37 of that opinion). Nor could a change of opinion following discussion and deliberation at the oral proceedings be regarded as surprising, let alone exceptional (cf. the mention of the non-binding nature, and the reference to Article 17(2) RPBA 2020, in point 5 of the opinion).
27. Novelty attacks based on D6 were brought forward with the notice of opposition and upheld throughout the entire opposition and appeal proceedings.
28. A discussion on novelty having regards to D6 was to be expected. Indeed, it would have been inevitable before the patent could be maintained, which is what the proprietor was requesting.
29. That a final conclusion on the matter could only be achieved after the discussion at the oral proceedings was self-evident.
30. There were sufficient earlier opportunities for requests to be filed in reaction to the attack based on D6.

31. Hence, no exceptional circumstances, let alone any cogent reasons, can be identified that could justify the admission of these requests, submitted at such a late stage in proceedings.
32. Consequently, auxiliary requests 1 and 2 are not taken into account.

Auxiliary request 3: consideration

33. Auxiliary request 3 was filed, for the first time in 2019, within the time period foreseen under Article 12(1) RPBA 2007 for the proprietor's reply to the opponent's statement of grounds of appeal (then as auxiliary request 5). It was submitted for consideration in the event that the Board considered the request found allowable by the opposition division to lack novelty and/or inventive step over D6, D7 or, if admitted, D15 and D16.
34. In the preliminary opinion accompanying the summons to oral proceedings, the Board, referring to Article 12(4) RPBA 2007 (point 48), indicated its inclination not to consider this request, which could and should have been submitted before the Opposition Division (point 54).
35. Later in the written procedure, the condition under which this request was to be considered was changed to when one or more of the new documents, D15 to D19, were admitted into the proceedings. And then, during oral proceedings, the proprietor removed the condition, and argued that the removal was not an amendment, as the substance of the request was identical to that of the original filing with the reply to the opponent's appeal.

36. However, the removal of the condition turned the presence of a new request from a possibility into a certainty, at a very late stage.
37. In the Board's view, this constitutes an amendment of the proprietor's appeal case, irrespective of the substance. Since the amendment was made after notification of the summons, its admission is at the Board's discretion under Article 13(2) RPBA 2020. The criteria of Article 13(1) RPBA 2020 also apply (see explanatory remarks to Article 13(2) RPBA 2020 in document CA/3/19, EPO OJ Suppl. 2/2020, and Case Law of the Boards of Appeal, 10th ed. 2022, V.A.4.5.9)
38. The proprietor argued that the request's unchanged substance was an exceptional circumstance justifying its admission. Moreover, the removal of the condition was a reaction to an unexpected development during oral proceedings, having regard to the novelty attack based on D6. The revival of auxiliary request 3 was meant to overcome that objection.
39. The opponent argued that there were no exceptional circumstances justified by cogent reasons. A request reactive to the objection of lack of novelty based on D6 could and should also have been filed before the Opposition Division. In addition, claim 1 of auxiliary request 3 failed to overcome the issue, raised against the main request, of lack of novelty in view of D6, and gave rise to new issues.
40. The argument that the request is reactive to an unexpected turn of events at oral proceedings is not persuasive, for the reasons indicated above regarding auxiliary requests 1 and 2 (point 26 to 29). On the

other hand, the fact that the request, in substance, is identical to a request filed with the reply to the opponent's appeal does weigh in favour of its consideration.

41. The Board, however, recalls that one of the criteria to consider under Article 13(1) RPBA 2020 is whether the party has demonstrated that the amendment, *prima facie*, overcomes the issues raised by another party in the appeal proceedings or by the Board, and does not give rise to new objections.
42. Claim 1 of auxiliary request 3 adds, to claim 1 of the patent, the limitations that *the machine detectable characteristic is magnetism, fluorescence, luminescence or conductivity, further wherein the code is a spatial code arranged to be read by measuring relative distances between the regions in the at least two sets.*
43. As mentioned above, D6 employs magnetism as the machine readable feature, a point that was never in dispute. In such substrates, the information is encoded in different sets of spatially related regions of different magnetization, which spatial relationship is read when reading the magnetically encoded information (paragraphs 17 and 21, above).
44. This request is, hence, *prima facie* unable to overcome the issue of lack of novelty vis à vis D6 identified with the main request.
45. Additionally, as noted by the opponent, the limitation that the spatial code is *arranged to be read by measuring relative distances between the regions in the at least two sets* raises new issues, since it seems to relate to the reader, that is not part of the subject-

matter of claim 1, rather than to the spatial arrangement of regions of different magnetization.

46. Consequently, auxiliary request 3 is not taken into account.

Auxiliary request 4: consideration and novelty

47. Auxiliary request 4 was found allowable by the Opposition Division.
48. It is, therefore, a request that was admitted into the opposition proceedings and decided upon.
49. Under Article 12(1)(a) and (2) RPBA 2020, this request is already part of these appeal proceedings.
50. Claim 1 of auxiliary request 4 adds, to claim 1 of the patent, the limitation *wherein the machine readable feature is magnetism, fluorescence, luminescence or conductivity*.
51. Since, for the reasons provided above, claim 1 of the main request lacks novelty in view of D6, and since the machine-detectable characteristic employed in D6 is magnetism, claim 1 of this request also lacks novelty in view of D6 (Articles 52(1) and 54(2) EPC).
52. Therefore auxiliary request 4 is not allowable.

Auxiliary request 5: consideration

53. Auxiliary request 5 was filed, for the first time, in 2019, within the time period foreseen under Article

12(1) RPBA 2007 for the proprietor's reply to the opponent's statement of grounds of appeal (then as auxiliary request 7).

54. Its admission is hence at the Board's discretion under Article 12(4) RPBA 2007 (applicable under Article 25(2) RPBA 2020).
55. Claim 1 of this request adds, to claim 1 of the patent, the limitation *wherein the machine detectable characteristic is magnetism or conductivity*.
56. Since the machine detectable characteristic in D6 is magnetism, this amendment is not suitable for addressing the issue of novelty in view of D6 and cannot change the outcome. In that sense, the amended request fails to "relate[]" to the case under appeal".
57. Consequently, auxiliary request 5 is not taken into account.

Auxiliary requests 6 to 10: not pending

58. Auxiliary requests 6 to 10 are conditional on the Board's admission of any of D15 to D19.
59. As that condition is not met, they are not pending.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chair:



D. Meyfarth

P. Scriven

Decision electronically authenticated