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Datasheet for the decision of 9 March 2026

Case Number: T 0673/24 - 3.2.05

Application Number: 17877547.4

Publication Number: 3553706

IPC: B42D25/369

Language of the proceedings: EN

Title of invention:
Anti-counterfeiting element and anti-counterfeiting product

Patent Proprietors:
Zhongchao Special Security Technology Co., Ltd
China Banknote Printing and Minting Corp.

Opponents:
Hueck Folien Gesellschaft m.b.H.
Giesecke+Devrient Currency Technology GmbH

Relevant legal provisions:
EPC Art. 54(1), 56, 100(a), 111(1)
RPBA 2020 Art. 13(2)

Keyword:

Novelty (no: main request, auxiliary requests 1-3;
yes: auxiliary request 4)
Inventive step (yes: auxiliary request 4)
Added subject-matter (no)
Sufficiency of disclosure (yes)
Remittal for further prosecution (no)

Decisions cited:

G 0003/14, T 1811/13, T 1688/21

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Beschwerdekammern

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Case Number: T 0673/24 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 9 March 2026

Appellant: (Patent Proprietor 1)	Zhongchao Special Security Technology Co., Ltd No. 6 Xinghuo Road Science City Fengtai District Beijing 100070 (CN)
Appellant: (Patent Proprietor 2)	China Banknote Printing and Minting Corp. JIA 143 Xizhimenwai Street Xicheng District Beijing 100044 (CN)
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Respondent II: (Opponent 2)	Giesecke+Devrient Currency Technology GmbH Prinzregentenstraße 159 81677 München (DE)
Representative:	Patentanwälte Geyer, Fehners & Partner mbB Perhamerstrasse 31 80687 München (DE)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted/electronically transmitted on 14 March 2024 revoking European patent No. 3553706 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman P. Lanz
Members: O. Randl
A. Bacchin

Summary of Facts and Submissions

I. The patent proprietors filed an appeal against the opposition division's decision to revoke European patent No. 3 553 706 (the patent).

II. Of the documents cited by the opposition division, the following are referenced in this decision:

D2	WO 03/002355 A1	D8	WO 2010/006767 A2
D17	JP 2005-268655 A	D18	US 2010/0238205 A1

Together with their statement of grounds of appeal, the patent proprietors also filed, among other documents, an experimental report (D22).

On 23 January 2026, respondent II filed document D24, an English translation of the original international patent application on which the patent is based. The translation was made by Ms Jie Sun, in her role as in-house licensed Chinese patent attorney. The translator confirmed the completeness and correctness of the translation.

On 4 March 2026, the appellants filed document D25, an English translation of the second paragraph on page 4 of the original international patent application on which the patent is based, authenticated by a professional translator employed at Beijing Baijia Translation Company based in Beijing (CN).

III. Oral proceedings before the board were held on 9 March 2026.

IV. The appellants (patent proprietors) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or that the decision under appeal be set aside and the patent be maintained in amended form on the basis of the claims filed as auxiliary requests:

- 1 to 6 (on 13 February 2023)
- 7' (on 4 March 2026)
- 7 (on 1 February 2024)
- 8 (on 3 February 2023)
- 9 and 10 (on 17 October 2023)
- 10a' (on 4 March 2026)
- 10a (on 1 February 2024)
- 11 (on 17 October 2023)
- 11a' (on 4 March 2026)
- 11a (on 1 February 2024)
- 12 (on 1 December 2023)
- 12a' (on 4 March 2026)
- 12a (on 1 February 2024)
- 13 and 14 (on 1 December 2023)
- 14a' (on 4 March 2026)
- 14a (on 1 February 2024)

The appellants also requested remittal of the case to the opposition division if the board did not endorse the opposition division's reasoning for lack of patentability of one of the auxiliary requests, in so far as grounds for opposition remained which the opposition division had not yet decided upon.

V. The respondents I and II (opponents 1 and 2) requested that the appeal be dismissed.

VI. Claim 1 of the patent as granted (main request) reads (the feature references used by the board are inserted in square brackets):

"1. [**1**] A security element, comprising:

[**2**] a base material; and

one or more magnetic units located on the base material, characterized in that,

[**3**] a magnetic signal width (c2, d2, f, g) of at least a first magnetic unit (203, 204, 33, 34) of the one or more magnetic units is smaller than a visual width of the first magnetic unit (203, 204, 33, 34), and [**4**] the first magnetic unit (203, 204, 33, 34) is uniformly opaque as a whole, wherein [**3.1**] the magnetic signal width (c2, d2, f, g) is defined as a distance between a wave peak and a wave trough of the pulse signal detected by a magnetic sensor and corresponding to edges of a region capable of generating a pulse signal in the magnetic unit."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request by the additional feature "wherein [**5**] a magnetic content of at least a first region of the first magnetic unit (203, 204, 33, 34) is greater than a magnetic content of the remaining regions of the first magnetic unit".

Claim 1 of auxiliary request 2 is identical to claim 1 of auxiliary request 1. Auxiliary request 2 differs from auxiliary request 1 in that there are no claims corresponding to claims 2 and 3 of the latter.

Claim 1 of auxiliary request 3 differs from claim 1 of the main request by the additional feature "wherein [**6**] magnetic regions of the one or more magnetic units have optical opacity".

Claim 1 of auxiliary request 4 differs from claim 1 of the main request by the additional feature "wherein

[**7**] the one or more magnetic units are made of one kind of magnetic material".

VII. The parties' submissions regarding the issues relevant to the board's decision may be summarised as follows:

(a) Main request: novelty over document D2

(i) Appellants

Claim 1 is not anticipated by document D2. Opponent 1 also admitted this in its opposition before changing its mind. A magnetic unit must be made of magnetic material. It cannot encompass neutral element 50 as it is not magnetic. Therefore, only element 40 can be considered a magnetic unit, meaning that its visual width is equal to its magnetic width. Consequently, features 3 and 3.1 are not disclosed. Document D2 does not disclose opacity either. It often refers to transparent materials. The fact that barcodes are usually opaque does not constitute unambiguous disclosure of feature 4. Barcodes could be made of yellow or fluorescent material.

(ii) Respondents

Document D2 discloses all features of claim 1. The appellants' arguments regarding novelty are based on an overly narrow interpretation of the term "magnetic unit", as well as on features that are not included in the claim (e.g. the idea that the magnetic unit must consist of magnetic material). Both the paragraph spanning pages 11 and 12 and Figure 4 disclose that magnetic coating 40 can overlap neutral region 50 or region 30. Section 20 constitutes the magnetic unit. Since the magnetic coating only covers part of it, the

magnetic signal width of magnetic coating 40 is smaller than the optical width of the corresponding section. Page 9, lines 22 to 25, discloses that the magnetic coating is optically indistinguishable from the other areas of sections 20. Page 9, lines 1 to 10, discloses that the sections form a barcode in which the coating is not recognisable. According to page 11, line 26, this is a standard barcode. Even a yellow barcode has a certain degree of opacity. As coatings 40 and 50 cannot be distinguished from one another with the naked eye (D2, claim 1 and page 5, lines 10 to 19), the unit as a whole is opaque. Feature 3.1 does not structurally limit the subject-matter of claim 1. Even when considered in isolation, region 40 contains less magnetic material in the right-hand part than in the left-hand part without overlap since the layer is thinner there. If the sensor is configured to detect the signal only in the left-hand part, the security element exhibits all features of claim 1.

(b) Auxiliary requests 1 and 2: novelty

(i) Appellants

The argument that feature 5 cannot establish novelty over document D2 because it is possible that the magnetic unit contains non-magnetic regions is unacceptable. The "magnetic content" of the remaining regions of a magnetic unit cannot be zero since otherwise these regions would not be part of the magnetic unit. The addition of feature 5 corroborates the view that each region of the magnetic unit comprises magnetisable material that remains weakly magnetic after magnetisation. The opposition division's assertion that this view does not correspond to common practice is not substantiated. The general statement

that the term should be interpreted in its broadest meaningful sense is insufficient. Content cannot be null or empty. There are no examples of the magnetic content of a region equalling zero. In fact, even the security elements that do not correspond to the invention, as shown on the left of Figure 2, have a non-zero magnetic content.

(ii) Respondents

The observations made by the opposition division in section 32 of the decision under appeal are correct: the subject-matter of auxiliary requests 1 and 2 is not new. The added feature does not restrict the scope of claim 1. It does not preclude the possibility of a subregion having no magnetic content. The argument that the magnetic content of a subregion cannot be zero because this would contradict the literal meaning of the added feature is invalid since the added feature only stipulates that the magnetic content of the two subregions must differ. Since there is no lower or upper limitation on magnetic content, claim 1 encompasses embodiments with a first subrange where the magnetic content is greater than zero and a second subrange where the magnetic content is zero, as in document D2 (page 13, second paragraph).

(c) Auxiliary request 3

(i) Appellants

Feature 6 clarifies the type of opacity intended. This is important for interpreting Figure 4 of document D2 as it shows that the neutral region belongs to the magnetic unit. Document D2 does not clearly show that both the neutral coating region 50 and the magnetic

coating region 40 are optically opaque. In Figure 4, areas 40 and 50 could both be translucent (e.g. pink), forming code 20. The coating in document D2 may also be transparent (see page 13, lines 17 and 18).

(ii) Respondents

Feature 6 does not limit the subject-matter of claim 1. Rather than referring to the magnetic unit as a whole, it only refers to its magnetic regions, which are only required to be optically opaque in places (i.e. not everywhere). Document D2 provides visible optical opacity in accordance with feature 6 (page 9, lines 1 to 6). Thus, auxiliary request 3 should be assessed in the same way as the main request in terms of novelty.

(d) Auxiliary request 4: interpretation

(i) Appellants

Feature 7 ("magnetic units [...] made of one kind of material") means that the units consist of one kind of material (T 1688/21, Reasons 3.2, 6.2). Magnetic ink comprises non-magnetic components such as binders, but it is a single, homogeneous material. Feature 7 precludes the application of two inks with different magnetic properties. According to paragraph [0024] of the patent, "[t]he magnetic unit is made of one kind of material; therefore, it can be made by one-step printing". The printing process is uniform because the same ink is used. Paragraph [0028] describes how this is achieved using a plate printing technique. A uniform ink is applied at varying thicknesses by means of certain segments of the printing plate that are of greater depth. It would not be possible to apply ink made exclusively of magnetic components.

(ii) Respondents

There is a difference between "one material" and "one kind of material". As can be seen, for example, from page 14, lines 7 to 12, of document D2, the skilled person is aware that there are different types of magnetic material. The appellants' interpretation raises questions regarding the sufficiency of the disclosure since the patent only mentions inks and does not refer to a situation in which only magnetic material is used. The skilled person distinguishes between magnetic materials (pigments) and non-magnetic materials (binder). They would interpret "one kind of magnetic material" as meaning that magnetic material must be present in the magnetic unit and that it must be one specific type. There may be areas where no magnetic material is present. The skilled person would therefore interpret "made of" as "comprising".

(e) Auxiliary request 4: added subject-matter

(i) Respondents

Feature 3.1: When measuring the width of the magnetic signal, the magnetic sensor moves relative to the security element in a certain direction. Moving the sensor perpendicular to the arrow in Figure 1 of the application as filed, which defines the direction of movement of the sensor, leads to a signal curve in which the magnetic signal width corresponds to the optical width. As feature 3.1 does not refer to a defined moving state of the security element or sensor, measurements of sensors at rest or moving differently to those shown in Figure 1 are not excluded. Therefore, this feature constitutes an unallowable generalisation.

Feature 4: The feature "uniformly opaque as a whole" could be used to describe any level of opacity, e.g. in the UV or IR wavelength range. Although it was taken from page 5, second paragraph, of the application as filed, where it is disclosed in the context of the visual effect, it imposes no limitation on visible light. Opacity outside the visible range is not unusual in the field of security elements. The visual width of feature 3 is not linked to opacity in the claim. As the term "opacity" is not defined in a limiting manner, it must be given its broadest possible interpretation, including UV and IR opacity, for example, which are not disclosed in the original application. Consequently, the subject-matter of claim 1 extends beyond the content of the application as filed.

Claim 3: Feature 7 is now referred to by dependent claim 3, which was not originally dependent on it. Granted claims 2 and 4 have been combined, whereas previously they were not. According to granted claim 4, the magnetic content of the first region of the unit is greater than that of the other regions. Feature 7 is only disclosed in combination with ink in the third paragraph on page 4, where according to the certified translation D25 only "one kind of material" is mentioned, not "one kind of magnetic material". These two terms are not interchangeable. Therefore, the passage in question does not provide a basis for "one kind of magnetic material" or for combining claims 1 and 3 of auxiliary request 4. Page 2, lines 1 to 6, also does not provide a basis as the skilled person would need to select multiple items from a list to arrive at the subject-matter of claim 1.

(ii) Appellants

The opposition division's view regarding features 3.1 and 4 is to be endorsed. Regarding claim 3, the disclosure on page 2, lines 1 to 6, of the application as filed provides a basis for combining the features.

(f) Auxiliary request 4: sufficiency of disclosure

(i) Respondents

Different magnetic signal widths can be generated using sensors with different levels of sensitivity. The patent does not specify which sensor is used or how the magnetic field is measured. Figure 2 of the patent shows measurements taken using the same sensor. In the left-hand section, magnetic widths a2 and b2 extend over three peaks and two troughs. This contradicts the definition of the magnetic width of feature 3.1. If the magnetic width were measured as defined in the feature, the left-hand figure would be detrimental to novelty. Therefore, it is unclear to the skilled person how the measurement is to be carried out.

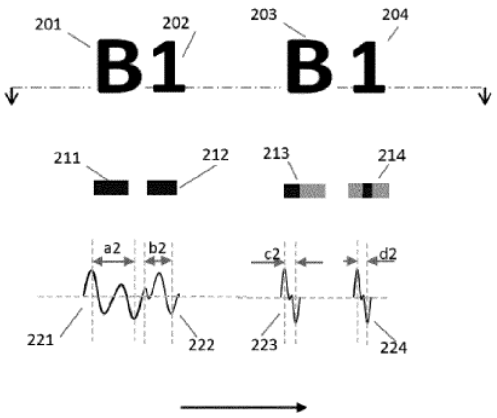


Fig. 2

To put the invention into practice, the skilled person must select a sensor and magnetic content. However, they are unable to determine whether the result corresponds to the prior art or the invention as the patent does not explain which peak or trough should be used. This is also not apparent from document D22.

Therefore, Figure 2 of the patent provides evidence that the method is not feasible. Subsequent experiments cannot overcome this flaw. If the magnetic unit consists of the same magnetic material across its entire width, a magnetic signal is generated across its entire width. Its strength depends only on the sensor. Therefore, the optical width corresponds to the magnetic width of the magnet unit. This contradicts features 1 to 4 as it is unclear how uniform light transmission across the entire magnetic unit can be achieved if the layer thickness of the magnetic material is lower in the edge areas than in the central area. The patent does not specify which magnetic material should be used or the layer thicknesses required to fulfil the requirements of a greater optical width and uniform opacity. In this case, the lack of clarity prevents the skilled person from implementing the invention.

(ii) Appellants

Despite the signals appearing completely different, the respondents had no difficulty applying the definition of the sensor signal according to feature 3.1 to all the cited documents. Regarding Figure 7 of document D8, the argument was based on the derivative of the signal, and it was claimed that measurement was possible. It is unclear why the situation should be different in the patent. On the right-hand side of Figure 2 of the patent, a security element according to the invention is shown, the nature of whose signal is clearly discernible. However, it is unclear exactly how the prior art is magnetised. It cannot be deduced from the left-hand side of Figure 2 that the invention does not work given that the right-hand side shows that it does. The figures demonstrate that the magnetic signal is narrower than the visual width. The pulse signal of

feature 3.1 is always associated with an edge of the magnetic region. The invention involves reading a signal introduced beforehand: when examining the security element, the user knows what form the signal must take for authenticity to be established. Unlike the appellants, the respondents have not submitted any test reports to support their assertions.

(g) Auxiliary request 4: novelty over document D2

(i) Appellants

As shown in Figure 4 of document D2, the bar comprises an element 40 made of magnetic material and an element 50 made of non-magnetic material. Therefore, the resulting unit cannot be made of only one magnetic material. Therefore, document D2 cannot anticipate the subject-matter of claim 1. The opposition division interpreted "made of" as "comprising" because it understood that the magnetic unit must also comprise non-magnetic areas. Even if element 40 is considered to be a magnetic unit, it still consists of different materials since element 50 extends into it. Respondent II's submission regarding the shape of the edges is late and should not be admitted. The drawing is not disclosed in document D2. Even if some magnetic units had rounded corners, this would have virtually no effect on their magnetic scanning behaviour. The thickness of a typical magnetic unit is in the region of a few micrometres, while the minimum print width is between 0.2 and 1 mm. Rounded corners would affect the width by a few micrometres at most, i.e. less than 1% of the print width, well below the detection accuracy of a standard sensor setup. They would have no bearing on authenticity verification in practice.

(ii) Respondents

Document D2 does not require the mixing of several types of magnetic material (see page 13, lines 24 to 25 and page 14, lines 1 to 5). Feature 7 is therefore disclosed, meaning that the subject-matter of claim 1 lacks novelty in relation to document D2. Furthermore, document D2 discloses a single magnetic element 40 in Figure 1. The paragraph spanning pages 13 and 14 discloses that the elements forming the magnetic code 40 can be divided into subclasses that differ in their magnetic remanence and/or coercive field strength. For this purpose, the quantity and/or distribution of a single magnetic material can be varied. Therefore, a magnetic sensor consisting of only one material in a block 40 detects a magnetic width that differs from the geometric width of the element 40 and thus from the visual width. Furthermore, paragraph [0028] of the patent discloses that a magnetic element is printed using printing plates. Rounded edges are shown explicitly in Figure 1 of document D2 for block 40. Due to the sensitivity of the magnetic sensor, the rounded edges result in the magnetic signal width differing from the visual width. Moreover, Figure 1 of document D2 shows an embodiment with magnetic blocks 40 of varying thicknesses. The magnetic signal naturally varies with thickness as thicker magnetic blocks can be detected but thinner ones cannot. The barcode formed in this way therefore has features 1 to 7 (page 9, lines 1 to 4). If feature 7 is interpreted correctly, the combination of regions 40 and 50 in Figure 4 of document D2 also anticipates the subject-matter of claim 1. Region 40 has an optical width greater than the magnetic width, which depends only on the sensor setting. Page 6, lines 14 to 17, of document D2 discloses that the various materials may be based on

the same printing ink. On page 5, line 10, the term "neutral" is placed in quotation marks, which relativises it. Figure 4 shows that area 50 has a significantly lower layer thickness than the left-hand part of area 40. Therefore, it can be concluded that the same ink is used for elements 40 and 50 and that magnetic pigments are used in element 40 and potentially element 50 too. The term "neutral" is understood by the skilled person to mean that no magnetic signal is generated. However, as the thicknesses of the areas vary considerably, this can still be the case even when the same magnetic ink is used.

(h) Auxiliary request 4: novelty over document D8

(i) Respondents

Document D8 anticipates the subject-matter of claim 1. Figure 7 shows the magnetic content of the security element in relation to a spatial parameter. The magnetic content in region B is lower than in region C because the amount of magnetic pigment has been reduced using a line grid (see page 24, lines 16 to 19). This results in the sensor detecting a peak at the transition point. The area in question remains part of the magnetic unit because the amount of magnetic pigment has only been "reduced". Whether the magnetic pigments are removed partially or entirely is not explicitly disclosed. However, it is clear that the intention is to remove the material only partially, as illustrated in Figures 4A and 4B and on page 23, lines 7 to 10. The second paragraph on page 19 explains that the laser reduces the amount of pigment to between 10 and 50% of the original value. The same applies to Figure 7. Page 10, lines 13 and 14, states that areas with different magnetisations are created. The printed

material on page 17, line 1, is described as an olive-coloured magnetic paste. It is therefore opaque, as required by feature 4. Both areas B and C are magnetic. The only decisive factor is what the sensor detects. With a sensor such as that used in the patent, a signal in accordance with feature 3.1 is generated.

(ii) Appellants

Claim 1 differs from document D8 in several respects. In the embodiment illustrated in Figure 7, a plurality of magnetic materials is used. It is explicitly stated that the laser vapourises or ejects the magnetic particles (D8, page 5, lines 8 to 11). Consequently, the unit no longer consists of uniform magnetic material. The initial uniformity of the material is irrelevant. Since the material is altered by the laser, it cannot be assumed that the magnetic unit as a whole is opaque. In the area of the lines, the magnetic unit is no longer uniformly opaque. It also remains unclear whether any magnetic content remains. The fact that the magnetic particles have been vapourised suggests that high energies have been applied. A skilled person would also recognise that the binders are more temperature sensitive than the pigments.

(i) Remittal to the opposition division

(i) Appellants

A remittal is only justified if there are new and unexpected objections that need to be discussed. During the oral proceedings before the board, the appellants are prepared to discuss objections relating to inventive step starting from documents D2 and D8.

(ii) Respondents

The patent proprietors' grounds of appeal do not address the issue of inventive step. It would be contrary to the principle of equality of arms to require the respondents to do more than respond to the appellants' arguments on this matter. It is therefore appropriate to remit the case. Furthermore, given the close connection between the objections regarding Articles 56 and 83 EPC, remittal is justified.

(j) Inventive step, starting from document D2

(i) Appellants

Figure 4 of document D2 shows two different printing materials. Element 40 is made of magnetic material, while element 50 is made of non-magnetic material. Material 50 was applied first. Therefore, more than one type of material is used. This achieves higher anti-counterfeiting performance and simplifies production (see paragraph [0007] of the patent). As careful printing is required, the process is slow by default. The magnetic materials are designed to remain effective over time. The invention differs from document D2 in that the security element is produced in a single operation using a simple process. Document D2 therefore implements a completely different concept. Similar results can be achieved, but the means by which this is done are entirely different. Gravure printing could be used to apply two magnetic layers, but the document provides for a neutral layer instead. The respondents are interpreting the document contrary to its wording. Their reasoning is based on hindsight.

(ii) Respondents

Elements 40 and 50 in Figure 4 of document D2 have the same degree of opacity. Claim 1 of auxiliary request 4 does not mention printing, so the element could have been deposited by vapour deposition instead. Paragraph [0007] of the patent refers to high-precision over-printing. The complexity of the process described in document D2 is exaggerated given that gravure printing is explicitly stated to be the preferred process on page 10 in the final paragraph. Using this process, elements 40 and 50 can be applied simultaneously. This provides an incentive to apply both layers using the same material but with different thicknesses. Regarding the overprinting of the same colour, page 12, lines 14 to 18, describes an overlap of the sections which is identical to that described in the patent. Therefore, document D2 solves all the problems described in paragraph [0007] of the patent. The only difference between the invention and document D2 is that element 50 in Figure 4 is made of a different material to element 40. Its technical purpose is to mask the magnetic region and generate signals indicating that the optical width exceeds the magnetic width. This problem is already solved in document D2. Therefore, an alternative solution must be found. On page 5 of document D2, the term "neutral" is placed in quotation marks. The skilled person would therefore understand the neutral areas to mean that they do not provide a detectable signal. On page 6, lines 14 to 17, it is disclosed that the coating material and the neutral material are based on the same printing ink. The skilled person can therefore deduce that regions 40 and 50 are also based on this ink. On page 14, lines 10 to 12, the skilled person learns that magnetic pigments can be used. There is also a link to Article 83 EPC. Assuming the skilled

person can carry out the subject- matter of auxiliary request 4, the problem arises that uniform opacity can only be achieved by reducing the layer thickness. However, the layer thickness must be reduced so much that no magnetic signal is present. If it is assumed that the skilled person can achieve this, they must also be credited with the expertise to solve the objective technical problem. Therefore, the skilled person would understand that they could solve the problem by reducing the thickness of layer 50. Figure 4 also shows that the thickness of layer 50 is smaller than that of layer 40. Thus, it would have been obvious to the skilled person to use the same printing ink.

(k) Inventive step, starting from document D8

(i) Appellants

Document D8 describes a two-stage process involving the application of uniform magnetic material. At the intermediate stage, the visual width is the same as the magnetic width. The second step is laser treatment, which also requires overprinting. In terms of opacity, however, this approach is far inferior. Although document D8 aims to achieve uniform opacity, it fails to do so. Furthermore, laser treatment of a coating is difficult and may compromise opacity. The treatment also destroys the properties of the ink and binder (see page 5, lines 8 to 11). As the pigments are susceptible to environmental influences such as oxidation, opacity cannot be guaranteed in the long term. Therefore, a skilled person would not have pursued this approach. A similar result may ultimately be achieved, albeit with a different level of quality. Moreover, laser treatment alters the material locally, meaning feature 7 is not fulfilled. The objective is to streamline the

manufacturing process and eliminate the need for over-printing. This can be achieved using the disclosed sheet-fed printing process. However, any other printing process would also be suitable, except for the process of document D8 as the sequence of two printing operations requires a certain degree of precision.

(ii) Respondents

Figure 7 of document D8 illustrates the reduction of magnetic material in certain areas by laser radiation. The aim is to prevent colour change (see page 6, third paragraph). The difficulty of laser treatment is irrelevant as this method is explicitly presented as a solution in document D8. There is no evidence that the laser destroys the binder or accelerates ageing processes. The quality of the outcome is not reflected in the claim. Nor does the claim define the reading properties or the layer thicknesses during application. The patent does not exclude a multi-stage printing process. While the appellants repeatedly refer to "one kind of material", claim 1 refers to "one kind of magnetic material", which is different. Distinguishing feature 4 solves the problem of affecting the opacity or visibility of the reduction. This issue is addressed in document D8 itself. In the embodiment of Figure 7, the reduction is not intended to be visible. This is also evident from the perspective view of a gravure printing element in Figure 8. Some magnetic material has been removed from a small area B within region C, and it is obvious to the skilled person that the same principle applies to both figures. Therefore, the reduction in visual perceptibility (D8, page 25, first paragraph) also applies to Figure 7. This gives the skilled person reason to ensure that visual perceptibility is reduced by the line grid and that the

opacity of the structure is maintained. Regarding features 3 and 3.1, consideration must be given to the coated surfaces. In connection with Figure 7, an exemplary signal from a magnetic sensor is mentioned. This signal has an upward peak at both the transition from magnetic to non-magnetic material and from non-magnetic to magnetic material. A different sensor is used in the patent. Figure 3 of the patent shows that the sensor produces an upward or downward peak, depending on the type of transition. When examining the disclosure of features 3 and 3.1, a hypothetical sensor that behaves in the same way as the one described in the patent must be considered. Such sensors are familiar to the skilled person, otherwise the invention would not be sufficiently disclosed. The skilled person knows which signals to expect when applying the sensor to the object shown in Figure 7 of document D8. The aim of document D8 is to minimise the influence of the magnetic content (see pages 25 and 19 of document D8). Although the teaching on page 19 does not refer directly and unambiguously to Figure 7, it is obvious to the skilled person that it should be applied to that figure. Document D8 discloses a reduction in magnetic material in certain areas in the final paragraph on page 13. The physical principles underlying Figure 8 are explained on page 8: magnetic particles near the surface are affected more strongly by the laser than those deeper down. The advantages of the reduction are described on page 6, lines 17 to 24. If only a slight change in colour is desired, the opacity must remain unchanged. The unit therefore remains uniformly opaque. The preceding paragraph explicitly states that a change in magnetic properties may be accompanied by a change in colour, which should be as inconspicuous as possible. Magnetic paint with no visible colour is excluded as the colours should be as similar as

possible. From the document's overall context, the skilled person deduces that the reduction effect should not be discernible with the line grid and that only a small portion should be removed (e.g. 10%). The signal curve representation in the patent is identical to that in Figure 7 of document D8. The patent shows the first derivative of the inverted signal shown in Figure 7. The actual signal resembles a parabola. Figure 7 shows the inversion of the expected signal.

(l) Admittance of objections starting from documents D17 and D18

(i) Respondents

Documents D17 and D18 had been discussed in the notice of opposition. They establish that different magnetic materials and content had been disclosed. Although feature 7 was not relevant at that time, it is clearly disclosed in these documents, meaning that the differences are the same as for the main claim. It is appropriate and not surprising that these objections are now being raised. By analogy with the findings in case T 144/22, there must be a valid reason for filing objections. In the absence of such a reason, an opponent cannot be expected to file objections.

(ii) Appellants

The appellants' defence was based on the limitation to "one kind of material" and to "one-step printing" (auxiliary requests 4 and 6). The opponents should have anticipated this and prepared corresponding arguments. The objections based on documents D17 and D18 were not discussed in opposition. They should not be admitted.

Reasons for the Decision

1. Main request

1.1 Claim interpretation

1.1.1 "magnetic unit"

The term "unit" has a rather broad semantic range but generally refers to "an individual thing regarded as single and complete; each of the smallest separate individuals or groups into which a complex whole may be analysed" (see the Oxford English Dictionary entry at www.oed.com). The term "magnetic unit" highlights the fact that the element in question is magnetic. The skilled person confronted with this term would normally assume that the unit as a whole is magnetic rather than partially magnetic. However, feature 3.1 introduces complexity as it refers to a "region capable of generating a pulse signal in the magnetic structure". If the magnetic signal width of the unit is smaller than its visual width, as required by feature 3, there must be a region within the magnetic unit incapable of generating a pulse signal that can be detected by a magnetic sensor. While the claim does not specify the reasons for this, the skilled person would understand that the region in question is incapable of generating a pulse either because it is not magnetic or because its magnetisation is too weak to be detected. The embodiment disclosed in paragraph [0028] of the patent corresponds to the latter case: the units on the right-hand side of Figure 2 comprise regions with varying amounts of magnetic ink filling. Regions without any magnetic ink filling are not disclosed.

Therefore, the magnetic units according to claim 1 may contain non-magnetic subregions. The opposition division's assertion that a unit is magnetic if it contains subregions with detectable magnetic content (see section 31.2 of the decision under appeal) appears to be too generalised. A unit containing only a few tiny magnetic subregions could hardly qualify as magnetic. To qualify as magnetic, a unit must contain significant magnetic subregions. It is difficult to be more precise in the abstract. Whether a unit of the state of the art comprising both magnetic and non-magnetic regions is a magnetic unit within the meaning of claim 1 must be determined on a case-by-case basis.

It was argued that the ability of a region to generate a machine-readable pulse signal depends on the machine used to read the signal and, therefore, on the magnetic sensor used — neither of which is specified in the claim. Although this observation is correct, it does not change the definition of a "magnetic unit". The issue is one of the clarity of the claim. However, as claim 1 is a granted claim, its clarity is not an issue to be considered by the board (see decision G 3/14).

1.1.2 Feature 3.1

Feature 3.1 provides a definition of the magnetic signal width. It explains how this width should be measured. Apart from enabling conclusions to be drawn about the meaning of the term "magnetic unit" (see point 1.1.1), it is only in combination with feature 3 that it defines the security element structurally.

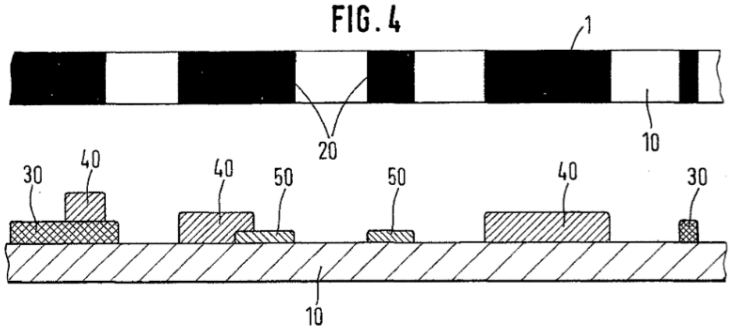
1.1.3 Feature 4

Feature 4 requires the first magnetic unit to be "uniformly opaque". In optics, an object is considered opaque if it is neither transparent nor translucent. The requirement for the unit to be "uniformly" opaque suggests that any significant variation in opacity is excluded. Therefore, the term "opaque" should not be understood to mean absolute opacity (where there is no light transmission at all), but rather that an object is "opaque" if it has a high degree of opacity.

1.2 Novelty over document D2 (Articles 100(a) and 54(1) EPC)

Document D2 discloses a security element 1 comprising a carrier material 10 provided with a magnetic coating 40 forming a first code and an electrically conductive coating 30 forming a second code. The security element also comprises an optically readable code 20, such as a barcode, comprising non-magnetic, non-conductive coating 50 covering areas of the security element that are not covered by the first or second coatings. The three coatings 30, 40 and 50 cannot be distinguished from one another with the naked eye.

FIG. 4



The opposition division found that the subject-matter of claim 1 lacked novelty in view of the disclosure in

document D2 (see sections 31.2 to 31.5 of the decision under appeal). However, the appellants argue that document D2 fails to disclose features 3, 3.1 and 4.

1.2.1 Features 3 and 3.1

The opposition division considered that each bar in the barcode shown in Figure 4 of document D2 constituted a magnetic unit. When a magnetic sensor is used, transitions at the edges of magnetic element 40 are detected. As the distance between these edges is smaller than the visual width of the bar, the opposition division concluded that features 3 and 3.1 were disclosed in document D2.

Whether features 3 and 3.1 are disclosed depends on whether the barcode in Figure 4 of document D2 constitutes a magnetic unit as defined in the patent. Adopting the above interpretation of the term "magnetic unit" (see point 1.1.1), each bar of the barcode constitutes a unit. The magnetic portion 40 of the second bar from the left in Figure 4 of document D2 is a significant part of the bar. It is reasonable to conclude that the bar as a whole constitutes a magnetic unit, despite comprising a neutral portion 50. The visual width of the bar exceeds the width of the magnetic signal that would be detected by a magnetic sensor (corresponding to the edges of portion 40), meaning that features 3 and 3.1 are disclosed.

It is irrelevant whether the bar solves the problem addressed by the invention, which is to improve anti-counterfeiting performance without the need of high-precision over printing, as this problem is not expressed in claim 1. It is clear that a magnetic signal detected by a magnetic sensor would comprise a

wave peak and trough, which define the signal width. Finally, opponent 1's change of mind regarding the disclosure of feature 3.1 is irrelevant. As the opposition division concluded that the subject-matter of claim 1 lacked novelty over document D1, the board must review this finding.

1.2.2 Feature 4

The opposition division based its assertion that feature 4 is disclosed in the embodiment of Figure 4 on the fact that it was described as a usual barcode (page 11, line 26: "*üblicher Balkencode*"), meaning that the magnetic unit is uniformly opaque. However, the appellants argue that document D2 does not specify that coating areas 40 and 50 must be opaque; they could also be translucent.

The board endorses the opposition division's view. While barcodes are not intrinsically uniformly opaque, usual barcodes are.

1.2.3 Conclusion

Document D2 anticipates the subject-matter of claim 1.

Therefore, the ground for opposition pursuant to Article 100(a) in conjunction with Article 54(1) EPC prevents the patent from being maintained as granted.

2. Auxiliary requests 1 and 2

Claim 1 of auxiliary requests 1 and 2 differs from claim 1 of the main request in feature 5. The opposition division was of the opinion that document D2 also discloses feature 5 since the magnetic content of

the neutral portion 50 (which is zero) is smaller than that of the magnetic portion 40 (see sections 32.2 and 32.3 of the decision under appeal).

In essence, the appellants' counter-argument is that the magnetic content of any region of a magnetic unit cannot be zero; otherwise, this region would not be part of the magnetic unit. The board does not endorse this reasoning for the reasons set out in point 1.1.1.

As the subject-matter of claim 1 is disclosed in document D2, it is not possible to maintain the patent in amended form based on auxiliary request 1 or 2.

3. Auxiliary request 3

Claim 1 of auxiliary request 3 differs from claim 1 of the main request in that it includes feature 6. As sections 34.1 to 34.3 of the decision under appeal indicate, the opposition division concluded that feature 6 was partly redundant with feature 4 and did not further limit the claimed subject-matter.

The appellants argue that document D2 does not unambiguously disclose that regions 40 and 50 (the magnetic and neutral coating regions, respectively) are optically opaque. They could be translucent. The coating in document D2 could also be transparent (see page 13, lines 17 and 18).

The term "optical opacity" typically refers to the extent to which a material is impenetrable to electromagnetic radiation, particularly visible light. Feature 4 requires the first magnetic unit to be uniformly opaque, i.e. to have a constant (high) degree of opacity (see also the point 1.1.3 above). It is

clear from the context that optical opacity is intended. Feature 6 adds that the magnetic regions of the magnetic unit must also be optically opaque. However, the board is unable to see how this feature further delimits feature 4. If the magnetic unit as a whole has a constant opacity, its magnetic regions necessarily have an optical opacity.

Therefore, feature 6 cannot restore novelty over the disclosure in document D2. Consequently, it is not possible to maintain the patent in amended form on the basis of auxiliary request 3.

4. Auxiliary request 4

4.1 Claim interpretation

Additional feature 7 requires the magnetic unit(s) to be "made of one kind of magnetic material". Regarding the meaning of "magnetic unit", the board refers to point 1.1.1 above.

The board agrees with the parties that the magnetic material as such can comprise non-magnetic components. For example, magnetic ink, expressly mentioned in paragraph [0024] of the patent, typically contains magnetic pigments as well as non-magnetic components such as solvents etc.

The question arises as to whether feature 7 means:
- that the unit may comprise magnetic and non-magnetic materials, but that all the magnetic material(s) are of the same kind, or
- that the magnetic unit consists of magnetic material(s) of a single kind

Having considered both interpretations, the board is of the view that the skilled person would choose the second one, given the wording of the claim. This interpretation also aligns with the embodiments disclosed in the patent. Consequently, the board adopts this interpretation.

4.2 Added subject-matter (Article 123(2) EPC)

4.2.1 Feature 3.1

It was argued that the amendment consisting of the addition of feature 3.1 constitutes an inadmissible intermediate generalisation since feature 3.1 does not specify that the definition of the magnetic signal width relates to a defined moving state of the safety element or sensor. This means that a measurement of a sensor at rest or moving differently to that shown in Figure 1 is not excluded.

This objection was dismissed by the opposition division in section 31.8 of the decision under appeal. It was pointed out that the direction of reading defines the direction in which the widths are measured and that this direction must be considered when measuring the widths defined in the claim.

The board endorses this finding. The skilled person would immediately recognise the direct correlation between the direction of movement of the sensor or security element and the direction of measurement of the magnetic width. Therefore, the omission of the direction of movement does not constitute an inadmissible intermediate generalisation.

4.2.2 Feature 4

Feature 4 was taken from page 5, line 6, of the translated application as filed, where it is disclosed alongside the term "under the visual effect", which restricts the feature to opacity within the visual spectrum. It was argued that, as it stands, claim 1 extends beyond the application as filed because it encompasses opacity outside the visible light spectrum, such as infrared opacity.

The opposition division dismissed this objection in section 31.9 of the decision under appeal. It was pointed out that in claim 1, the term "opaque" was intended to refer to the visible wavelength range, particularly since feature 3 refers to the "visual width" of the magnetic unit. The opposition division also referred to the common usage of the word "opaque".

The board reaches the same conclusion. While it is true that the concept of opacity is not limited to visible light (or even electromagnetic radiation), the skilled person would understand from the context of claim 1 that visual opacity is intended.

4.2.3 Claim 3

The board is satisfied that the original claims, as well as page 2, lines 1 to 6, of the translated application as filed provide sufficient grounds for combining claims 1 and 3. Page 2 presents various options for the security element of the invention. The skilled person understands that combining one or more of them may be advantageous, but they do not constitute a list as defined in the case law of the boards.

4.2.4 Conclusion

Auxiliary request 4 does not violate the requirements of Article 123(2) EPC.

4.3 Sufficiency of disclosure (Article 83 EPC)

The respondents' objections are based on the lack of information regarding the magnetic sensor used to determine the width of the magnetic signal. The respondents also argue that contradictions in the patent disclosure (particularly Figure 2 and the relevant parts of the patent description) would prevent a skilled person from reproducing the invention.

The board is satisfied that the skilled person would be able to select a base material and provide magnetic units on it. They could develop a definition of magnetic signal width in accordance with feature 3.1, configure a magnetic unit with a magnetic width smaller than its visual width according to this definition and configure the magnetic unit to be uniformly opaque. None of these steps exceeds what may be expected of a skilled person in the field of security elements. The inconsistency between the left- and right-hand sides of Figure 2 does not alter this conclusion as the drawing is not decisive for carrying out the above steps. Thus, the skilled person could carry out the invention using any appropriate, commercially available magnetic sensor.

This does not mean, however, that the skilled person would not face difficulties due to the fact that it is difficult to know whether a given security element falls within the scope of protection. However, this is in fact a problem relating to the definition of the

matter for which protection is sought (Article 84 EPC), rather than a matter of sufficient disclosure for the skilled person to carry out the invention at stake. In accordance with the Enlarged Board's decision G 3/14 (see the catchword), the board is not authorised to review the clarity of the granted claims.

It is true that a lack of clarity may render the invention unworkable, if it were shown that the patent as a whole, not only the claims, does not enable those skilled in the art – who can avail themselves of the description and their common general knowledge – to carry out the invention (T 1811/13, Reasons 5.1, last paragraph). This however is not the case here. As outlined above, the skilled person would have been able to carry out the invention.

The board therefore concludes that the patent discloses the invention in a sufficiently clear and complete manner for it to be carried out by a skilled person (Article 83 EPC).

4.4 Novelty (Article 54 EPC)

4.4.1 Novelty over document D2

The respondents put forward several arguments to demonstrate that the subject-matter of claim 1 lacks novelty in view of the disclosure in document D2.

(a) Feature 7

According to the respondents' first argument, feature 7 merely specifies that only one type of magnetic material should be used. It does not preclude the use of other materials alongside the magnetic material in

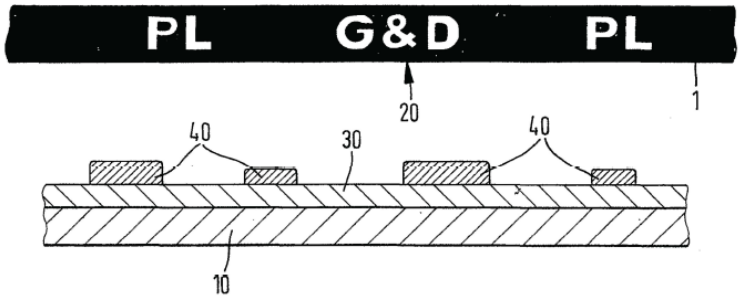
the creation of the magnetic unit. Thus, the opposition division's findings in section 35 of the decision under appeal are correct.

However, the board cannot accept this approach because its interpretation of feature 7 differs, as explained in point 4.1 above. In the embodiment of Figure 4 of D2, elements 40 and 50 are made of different materials. Therefore, feature 7 is a distinguishing feature, meaning that the subject-matter of claim 1 is new in relation to document D2.

(b) Embodiment of Figure 1: remanence/coercivity

In the embodiment shown in Figure 1 of document D2, the magnetic code is formed by magnetic blocks 40. The paragraph spanning pages 13 and 14 discloses that these blocks can be divided into subclasses that differ in magnetic remanence and/or coercive field strength. This can be achieved by using a material with variable pigment distribution. Consequently, a magnetic sensor detects a magnetic width that differs from the geometric and visual widths of unit 40.

FIG.1



This argument was late-filed as it was first presented in respondent II's written submission filed on 23 January 2026. No justification was provided for the late submission, nor were any new circumstances

apparent to the board that could justify admittance of this late line of argumentation. In accordance with Article 13(2) RPBA, therefore, the board decided not to admit this submission.

(c) Embodiment of Figure 1: rounded edges

This argument is based on the rounded edges of the blocks shown in Figure 1. The corresponding change in thickness results in a magnetic signal width that differs from the visual width.

However, the board finds this argument unpersuasive. The schematic drawings in document D2 do not allow conclusions to be drawn about the exact shape of the blocks. Furthermore, it is not credible that the variation in thickness at the edges of the blocks would result in a detectable reduction in the width of the magnetic signal. Therefore, it is impossible to conclude that such a reduction is implicitly disclosed in document D2.

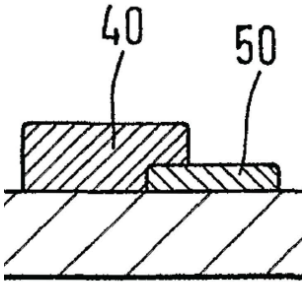
(d) Embodiment of Figure 1: barcode as a magnetic unit

This argument is based on the varying thicknesses of the blocks shown in Figure 1. The magnetic sensor can be selected to detect the thicker blocks but not the thinner ones. The barcode formed in this way exhibits features 1 to 7.

However, this argument is unpersuasive because the barcode as a whole does not qualify as a magnetic unit within the meaning of feature 2 (see point 1.1.1 above). Rather, it is composed of several magnetic units.

(e) Embodiment of Figure 4: further considerations

The respondents presented various arguments based on magnetic portion 40 of the second bar from the left, as depicted in Figure 4 of document D2. This portion, when taken alone or in combination with element 50, is said to form a magnetic unit that exhibits feature 7.



Detail of Figure 4

None of this is persuasive. A skilled person would not consider element 40 alone to constitute a magnetic unit within the meaning of feature 2. Furthermore, there is no clear disclosure that element 50 is made of the same magnetic material as element 40. The fact that the term "neutral" is in quotation marks on page 5, line 10, does not prove that the material is (weakly) magnetic.

(f) Conclusion

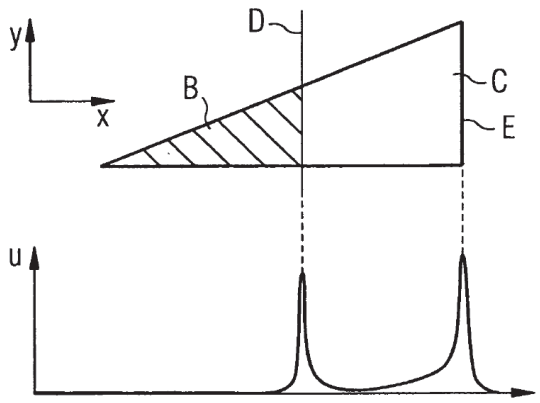
The subject-matter of claim 1 is new over the disclosure of document D2.

4.4.2 Novelty over document D8

Document D8 discloses a data carrier with a printed security feature comprising two subregions with the same thickness of the printing layer and the same printing ink. Both subregions contain a magnetic substance, but the second subregion contains less of it.

The top part of Figure 7 shows a top view of a security element. Areas B and C have been printed with ink containing magnetic pigments. The amount of magnetic pigment in area B is smaller; this was achieved by using a line grid. The signal U of a magnetic sensor is shown in the lower area, with detection in the x-direction. There are sharp edges at the boundary lines D and E.

FIG 7



As can be seen in section 11.4 of the opposition division's communication dated 18 July 2023, the opposition division provisionally concluded that the embodiment depicted in Figure 7 of document D8 anticipated the subject-matter of claim 1 as granted. The opposition division considered the optical width to correspond to the length of the entire magnetic unit and the magnetic signal width to correspond to the length of area C. The opposition division also referred to page 6, lines 4 to 24, of document D8, which states that a change in magnetic properties may be accompanied by a change in colour that should be as inconspicuous as possible. According to the opposition division, regions with reduced and high magnetic properties generate the same visual impression. Due to the use of colour inks, the disclosed magnetic units are opaque.

(a) Features 3 and 3.1

Document D8 discloses a magnetic unit of a certain width, but this width is measured differently to that required by feature 3.1. Although it is possible that

the width measured according to feature 3.1 would be the same, this is neither explicitly nor clearly disclosed in document D8. Furthermore, it cannot be derived from the information provided.

(b) Feature 4

It is by no means certain that laser treatment of the surface, resulting in a 50 to 90% local reduction in magnetic pigment, would produce a uniformly opaque magnetic unit, as required by feature 4. Therefore, this feature is not directly and unambiguously disclosed in document D8.

(c) Feature 7

Document D8 explains that laser treatment using a line grid significantly, but not completely, reduces the amount of magnetic pigment (see pages 19, lines 14 to 17 and page 24, lines 16 to 19). While this can be said to alter the material locally, the board is of the view that the nature of the material remains unchanged as the magnetic unit is still made of one type of magnetic material. Feature 7 is therefore anticipated.

(d) Conclusion

Claim 1 is new with respect to document D8 because features 3 and 3.1, when considered together, and feature 4 are not disclosed in this document.

4.4.3 Conclusion regarding novelty

The subject-matter of claim 1 is new over documents D2 and D8.

No other novelty objections were raised against auxiliary request 4.

4.5 Remittal to the opposition division (Article 111(1) EPC)

The board decided not to remit the case to the opposition division at this stage, in particular for further discussion of inventive step, because the board and the parties could be expected to deal with the objections against auxiliary request 4 that were on file or those that the board was prepared to admit into the appeal proceedings.

4.6 Inventive step (Article 56 EPC)

4.6.1 Admittance of the objections

The appellants have expressed their willingness to discuss the objections starting from documents D2 and D8 as these documents were discussed in detail alongside the novelty of claim 1. Therefore, the board admitted these objections into the appeal proceedings.

However, the board has decided not to admit the objections relating to documents D17 and D18 raised during the oral proceedings before the board for the following reasons.

Objections regarding a lack of inventive step based on documents D17 and D18 were raised against the main request in respondent II's opposition (sections 6.3 and 6.4 of the letter dated 19 September 2022). They were then referred to as documents E11 and E12.

In response to the oppositions, the appellants filed 8 auxiliary requests, including auxiliary request 4, which corresponds to the current auxiliary request 4.

In its letter of 27 June 2023, respondent II reiterated its objections against the main request. Concerning auxiliary request 4, respondent II stated in section 4 that feature 7 was known from documents D7 and D8. This meant that all documents detrimental to the novelty of the main request were also detrimental to the novelty of the independent claims according to auxiliary request 4, meaning that auxiliary request 4 was not a suitable fallback position either. No objection was raised regarding the inventive step of the subject-matter of auxiliary request 4.

In its reply to the statement of grounds of appeal, respondent II did not raise any objection regarding the lack of an inventive step in the main request other than making a general statement about all the objections raised during the opposition proceedings (section 1.5 of the letter dated 18 November 2024). The same applies to auxiliary request 4. In section 6 of the aforementioned letter, respondent II stated that auxiliary claim 4 should be assessed in the same way as the main claim with regard to patentability. Even accepting that in particular respondent II saw no reason to raise these inventive step objections in opposition, it should have done so at least in its reply to the statement of grounds of appeal.

Nevertheless, even after the board had stated in its communication under Article 15(1) RPBA that the subject-matter of claim 1 of auxiliary request 4 appeared to be new and that inventive step might need to be discussed, respondent II did not file any

objections based on documents D17 and D18 before the oral proceedings.

There are no exceptional circumstances justifying admittance of the late-filed objections raised during the oral proceedings before the board. The board has not changed its mind regarding the higher-ranking requests, nor has there been a significant change in the appellants' request, so that no fresh case can be said to have been brought in appeal. The appellants' qualification of their request for a remittal during the oral proceedings is irrelevant, particularly as the respondents did not file a request for remittal before the oral proceedings and could not have expected a remittal.

Therefore, in accordance with Article 13(2) RPBA, the board decided not to admit these objections, which had been raised for the first time during the oral proceedings before the board.

4.6.2 Inventive step, starting from document D2

As explained above (see point 4.4.1), feature 7 is the only feature that distinguishes the subject-matter of claim 1 from the disclosure of document D2.

The parties disagree on the technical effect of this feature. The respondents' assertion that the feature has no technical effect is not persuasive. The appellants consider that its effect lies in simplifying the manufacturing process. Since only one kind of material is required, this is credible. Therefore, the board retains this effect.

Thus, the decisive question is whether, starting from the barcode in Figure 4 of document D2, a skilled person trying to simplify the manufacturing process would have had good reason to use only one type of magnetic material for the magnetic units.

In the board's view, document D2 contains no teaching that would have led the skilled person to use only one kind of magnetic material.

The fact that the neutrality of the second material is referred to in quotation marks on page 5, line 10, does not constitute such a teaching. It is better understood as an indication that the term "neutral" will henceforth be used as shorthand for a material that does not have the electrically conductive or magnetic properties mentioned in the preceding paragraph.

This paragraph explains the basis for concealing ("*Verschleierung*") the security features that the invention provides. This concealment is based on the fact that in addition to coating with electrically conductive and/or magnetic materials, a further coating is provided that does not possess the characteristic physical properties of the machine features and is therefore neither electrically conductive nor magnetic. The board notes that the focus is not so much on whether the characteristic properties can be detected, but on whether the material possesses them.

Given that this teaching lies at the heart of the technical teaching of document D2, the board is of the view that the skilled person would not have considered using only one type of magnetic material. Such an approach goes against the core of the invention in

document D2. In the board's view, the respondents' argument is based on hindsight.

Therefore, the subject-matter of claim 1 involves an inventive step in view of document D2.

4.6.3 Inventive step, starting from document D8

As explained in point 4.4.2, document D8 does not disclose features 3 and 3.1 in combination and feature 4.

The board is satisfied that the combination of features 3 and 3.1 does not justify an inventive step. This is because the shape of the magnetic signal depicted in Figure 7 of document D8 relates to the signal shape on which the patent's teaching, and in particular feature 3.1, is based. The latter can be obtained from document D8 by means of a simple mathematical operation, namely by taking the derivative of the signal. The use of the raw signal rather than its derivative cannot establish an inventive step.

The same does not hold true for feature 4. While it is true that document D8 teaches that a change in magnetic properties may be accompanied by a change in colour and that the latter should be as inconspicuous as possible (page 6, lines 4 to 5), this does not constitute a teaching on the uniformity of the magnetic unit's opacity. Opacity is never considered or even mentioned in document D8. Colour and opacity are independent optical properties: a material of a specific colour can be opaque, translucent or transparent. Furthermore, while many physical processes can cause a material to change in both colour and opacity simultaneously, colour can change independently of opacity, and vice versa. Consequently, the board concludes that when

considered in isolation, document D8 would not have led the skilled person to provide a magnetic unit that is uniformly opaque.

Therefore, the subject-matter of claim 1 would not have been obvious to the skilled person starting from document D8.

4.6.4 Conclusion regarding inventive step

The subject-matter of claim 1 is inventive over document D2 or D8, both considered in isolation.

No other admissible objections regarding a lack of inventive step were raised against auxiliary request 4.

5. Overall conclusion

The claims of auxiliary request 4 comply with the requirements of the EPC. Consequently, the patent can be maintained in amended form on the basis of this request.

Therefore, the decision under appeal must be set aside.

However, as the appellants have not yet filed an adapted description, it is appropriate to remit the case to the opposition division, ordering it to maintain the patent in amended form based on the claims of auxiliary request 4, along with an adapted description and drawings.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent in amended form on the basis of the claims of auxiliary request 4, filed on 13 February 2023, and a description and drawings to be adapted thereto.

The Registrar: The Chairman:

N. Schneider P. Lanz

Decision electronically authenticated