

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/043189 A1

(51) International Patent Classification⁷: **A44C 21/00**,
B42D 15/00, B44B 5/00, G07D 7/12, B44F 5/00

(21) International Application Number:
PCT/NL2003/000796

(22) International Filing Date:
12 November 2003 (12.11.2003)

(25) Filing Language: Dutch

(26) Publication Language: English

(30) Priority Data:
1021905 12 November 2002 (12.11.2002) NL

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

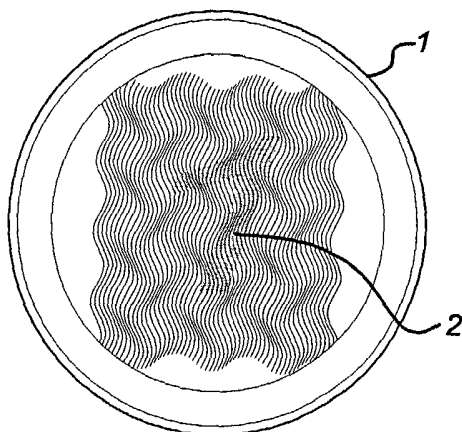
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COIN IMAGE COMPOSED OF CHARACTERISTICS



(57) Abstract: Coin/token provided with an image composed of characteristics. Such characteristics can comprise lines, symbols and the like. Not only the image is composed of such characteristics but also the surroundings bordering the image. The image can be revealed by varying the intensity of the characteristics. The edge of the coin is produced by rolling along a die after the other part of the coin has been produced.

Coin image composed of characteristics

The present invention relates to a coin/token provided with an image.

Such a coin or token is generally known in the state of the art. An image is formed
5 with the aid of a relief. Such a relief can be provided with grey tints by producing the
composition of the image using dots applied more or less densely.

In the case of currencies the aim is to apply as many security features as possible in a
currency such as a coin. After all, it has been found that in the longer term the majority of
security features can be counterfeited but that as a result of a combination of a large
10 number of features it is not very attractive to a potential counterfeiter to proceed with
reproduction.

A coin that, for example, is provided with a hologram or kinegram is described in the
document "Münze mit einem optischen Sicherheitselement (Coins with an optical security
element)", 1 June 1995 (1995-06-01), Research Disclose, Kenneth Mason Publications,
15 Hampshire, GB, p. 415 XP000519446 ISSN: 0374-435.

In the state of the art it is generally known to print bank notes with a wide variety of
types of patterns.

Therefore, the aim of the present invention is to provide a coin/token with a further
security feature.

20 According to the present invention this aim is achieved in that said image is
composed of a number of essentially identical characteristics which extend beyond said
image and wherein said characteristics at the location of said image have a different
intensity to those next to said image.

In contrast to the state of the art described above, where an image is composed by
25 changing the intensity of dots, according to the present invention it is proposed to compose
the various features using characteristics.

According to an advantageous embodiment of the invention, the depth of the
engraving, that is to say the difference between "high" and "low", is at least 0.03 mm. This
value is higher than the differences in height found with coins that are provided with grey
30 tints.

Characteristics are understood to be lines, letters, numbers, symbols, repetitive
figures, characters and the like. According to the present invention these characteristics are
applied with a greater or lesser degree of accentuation depending on the location on the

coin. The desired image is produced by applying a large number of characteristics that are accentuated (have a different intensity) to a greater or lesser extent. This accentuation can be obtained in any manner known in the state of the art. For instance, it is possible with the technique described above where dots are used to use a greater or lesser intensity of dots to obtain a more accentuated or less accentuated characteristic. It is also possible to vary the "line thickness". Moreover, the height thereof can be varied. When using characters it is also possible to vary the size of the characters. A lighter pattern is obtained with a smaller size. In this case the number of characters per unit surface area does not change. It is, of course, also possible to allow the number of characters to change and to produce a lighter or darker tint in this way.

If a number of lines arranged alongside one another is used, it is possible to position these lines closer to one another (more intensively) in some locations than in other positions.

According to a further advantageous embodiment, the so-called latent image technique is used for the coin/token concerned. That is to say the various features are composed of lines, characters or the like that extend in two directions which preferably cross perpendicularly. All sorts of light effects can be obtained by this means.

The repetitive characteristics applied in a regular manner can either be present in the master die or applied exclusively in a later working step in the working die. The latter will be the case in particular if the characteristics are produced with the aid of laser techniques. In such a case the master die will not contain the characteristics.

The characteristics are applied in accordance with a regularly repeating pattern. In the case of lines, the lines can be applied as undulating lines and the distance between the lines can vary depending on the position.

In contrast to the publications known in the state of the art for applying specific patterns to bank notes, the present invention relates to the application of reliefs to coins. Such a relief has a difference in height compared with the base material of 5 - 20 μ and more particularly approximately 10 μ . These reliefs are so chosen that a visible image is produced on the coin.

The invention also relates to the production of an image on the edge of a coin/token. In the state of the art after the blank has been punched this is provided with an edge image, after which the final image is then applied to the front and back of the coin/token.

It is now proposed to produce the coin in full and only then to produce the edge

image. This applies more particularly for images that are composed of line patterns or characters. In such a case a die is provided along which the coin rolls. Such an edge impression with grey tints constitutes a further security feature. It must be understood that in principle the step for the production of an edge image with grey tints is independent of the composition of an image by means of characteristics which has been described above,
5 that is to say can be used with any other method for the production of images on coins.

The invention will be explained in more detail below with reference to an illustrative embodiment shown in the drawing. In the drawing:

Fig. 1 shows a coin according to the invention provided with an image;

10 Fig. 2 shows a detail of Fig. 1;

Fig. 3 shows an alternative for characteristics;

Fig. 4 shows the composition of a latent image; and

Fig. 5 shows, diagrammatically, a method for the production of an edge image on a coin.

15 In Fig. 1 a coin is indicated in its entirety by 1. An image thereon is indicated diagrammatically by 2. The composition of this image with respect to the adjacent part of the coin can be seen from the detail in Fig. 2. From this it can be seen that the various features are composed of undulating lines 3 of varying thickness and varying spacing. An image can be obtained by applying these lines in a suitable manner. According to the
20 invention the image is preferably built up exclusively by variations in the characteristics such as the lines 3. An alternative for the characteristics is shown in Fig. 3 and consists of letters 4. It will be understood that other symbols can be used to obtain such characteristics. According to a particular embodiment the characters can be combined or partially consist of lines that cross one another. This is shown in Fig. 4. Here the characters according to the
25 present invention consist of horizontal lines 5. There is also an undulating pattern. A specific structure can be built up by applying vertical lines 6.

A method for the production of an edge image on a coin 1 is shown diagrammatically in Fig. 5. After the coin has been fully produced (with the exception of the edge image) it is rolled over a die 7 and an edge image is obtained there. The die is designed to transfer line
30 patterns or characters to the edge of the coin so that it is not a simple stamping that is produced but an image of complex composition.

Although the invention has been described above with reference to preferred embodiments, it will be understood that numerous modifications can be made thereto

without going beyond the scope of the present application. Numerous other characteristics are possible in order to differentiate an image with respect to the surroundings. These and further variants fall within the scope of the appended claims.

Claims

1. Coin/token (1) provided with an image, characterised in that said image is composed of a number of essentially identical characteristics which extend beyond said image and wherein said characteristics at the location of said image have a different intensity to those next to said image.

2. Coin/token according to Claim 1, wherein said image is formed exclusively by said characteristics.

3. Coin/token according to one of the preceding claims, wherein said characteristics comprise lines (3).

4. Coin/token according to Claim 3, wherein said lines comprise undulating lines.

5. Coin/token according to Claim 3 or 4, wherein said lines are essentially parallel.

6. Coin/token according to one of the preceding claims, wherein said characteristics comprise lines that cross one another.

7. Coin/token according to one of the preceding claims, wherein said characteristics comprise symbols.

8. Die for the production of a coin/token provided with a negative image for the production of a coin with positive image, wherein said image is composed of a number of essentially identical characteristics which extend beyond said image and wherein said characteristics at the location of said image have a different intensity to those next to said image.

9. Method for the production of a coin/token comprising striking said coin using a die according to Claim 8 and rolling the edge of said coin from said die along a further die to obtain an edge image.

10. Method according to Claim 9, wherein the pattern of said edge image in said further die is made using a laser.
11. Method according to Claim 9 or 10, wherein said edge image comprises grey tints.

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Fig 1

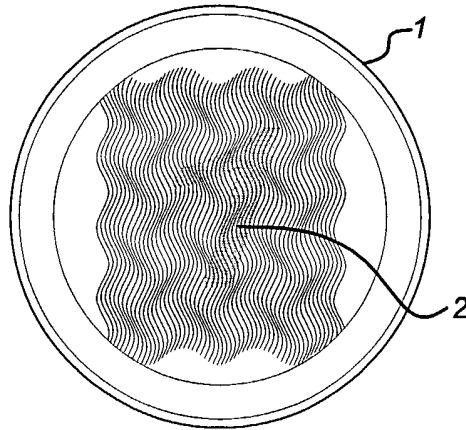


Fig 2

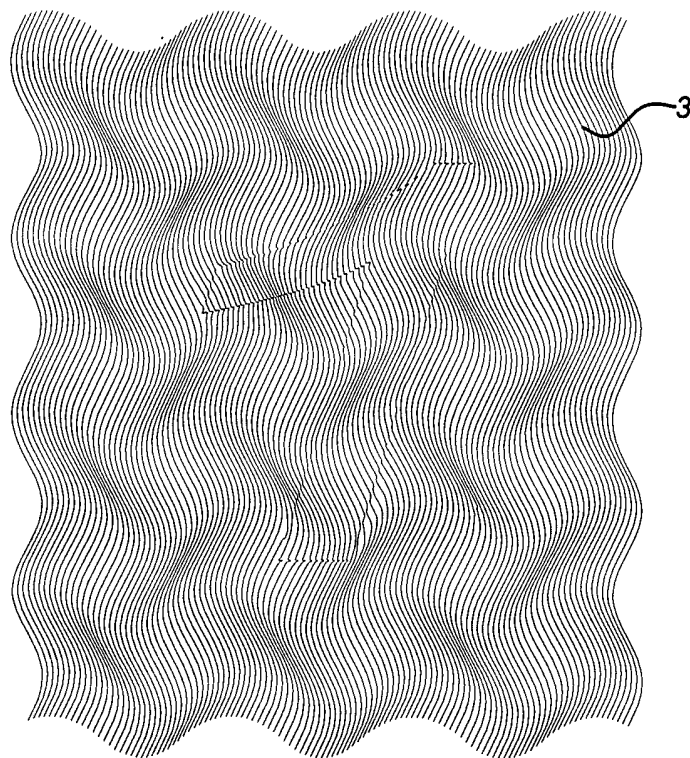


Fig 3

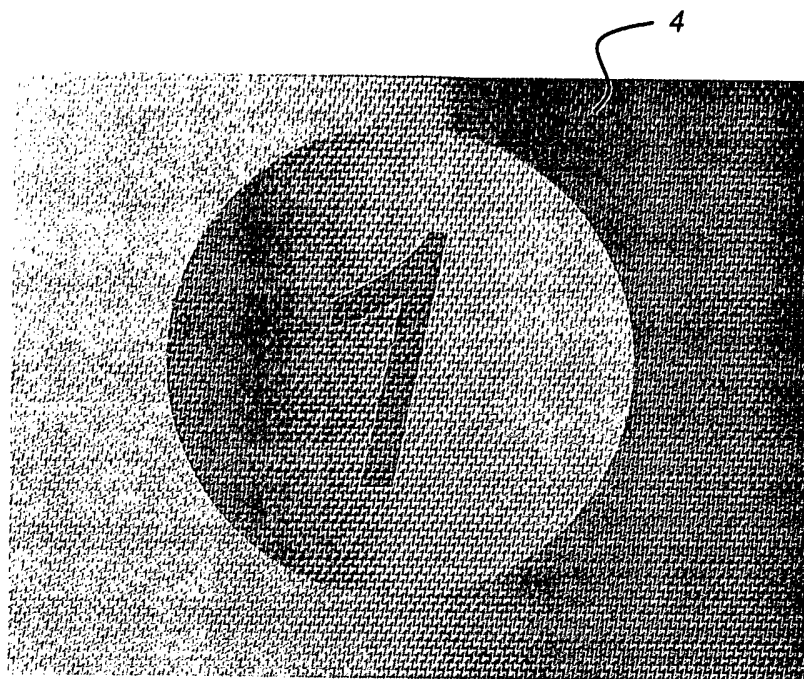


Fig 4

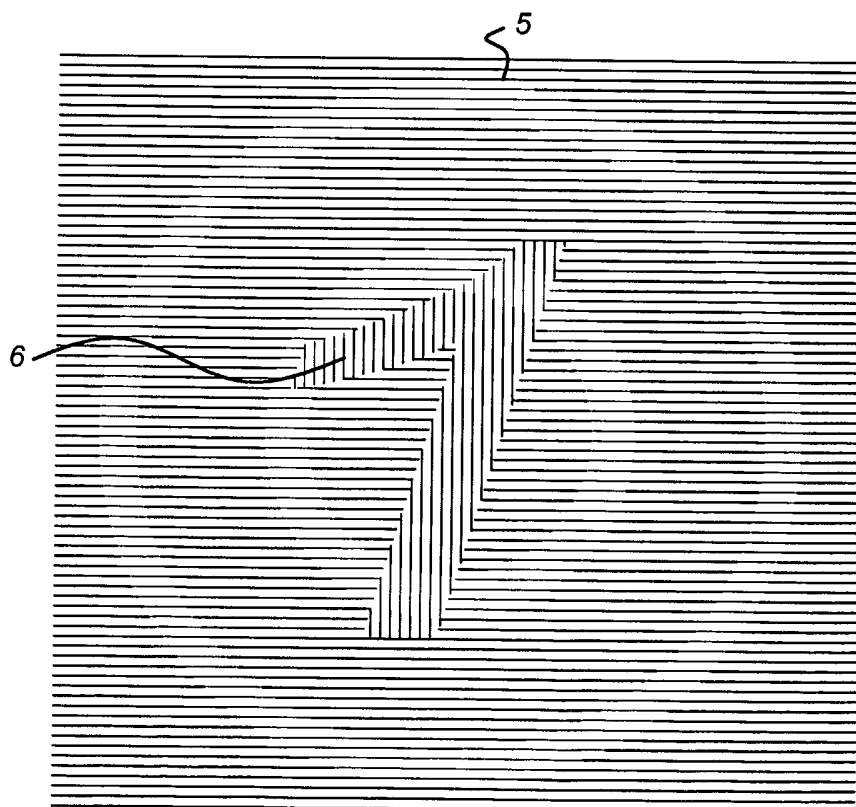
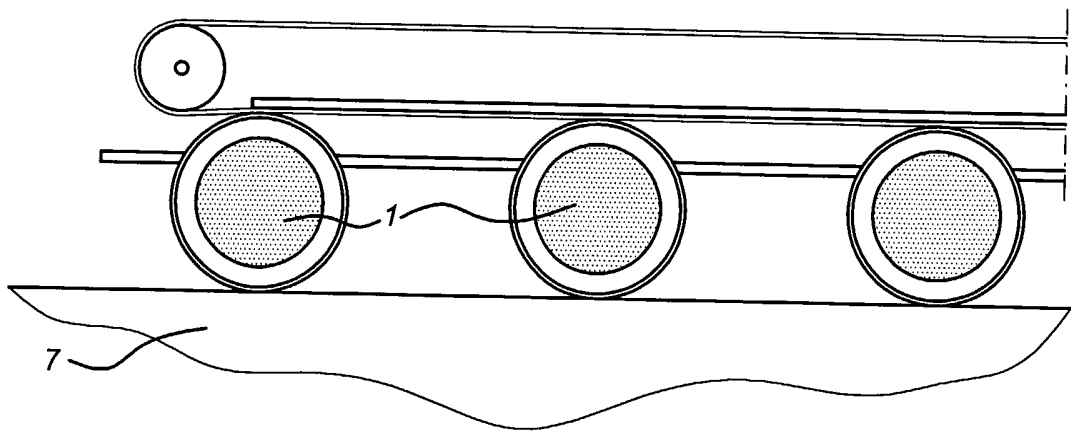


Fig 5



INTERNATIONAL SEARCH REPORT

International Application No
PCT/NL 03/00796

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A44C21/00 B42D15/00 B44B5/00 G07D7/12 B44F5/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A44C B42D B44B G07D B44F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

1 April 2004

Date of mailing of the international search report

16/04/2004

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INTERNATIONAL SEARCH REPORT

International Application No

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